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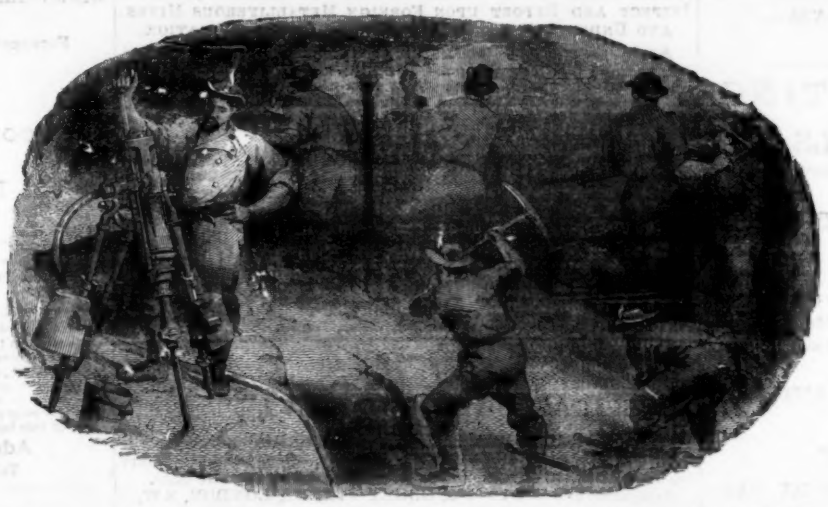

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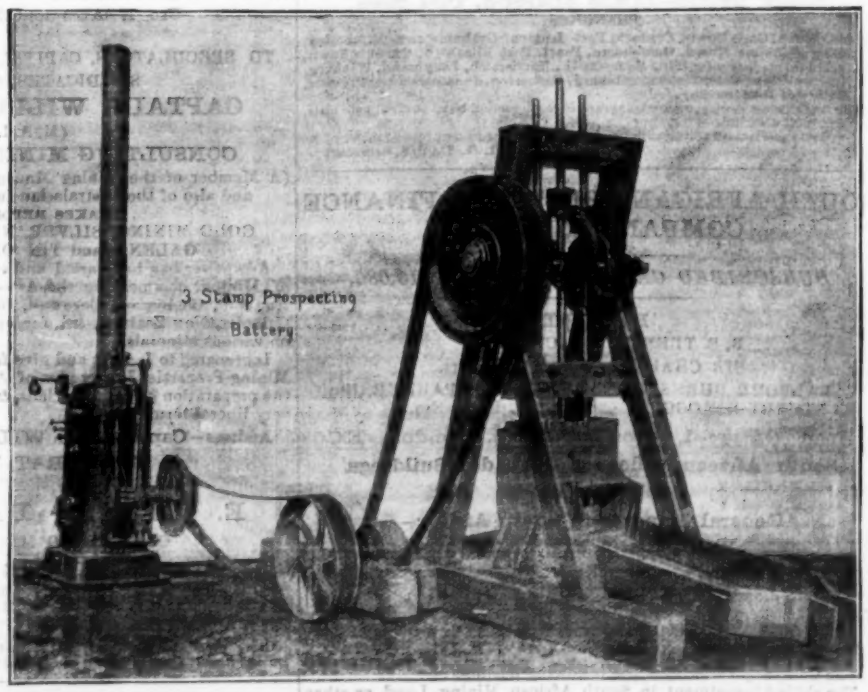

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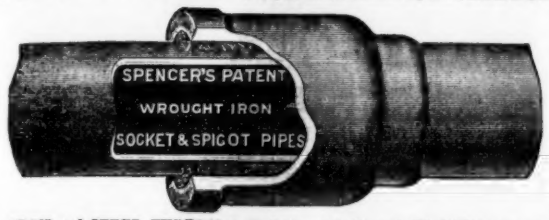

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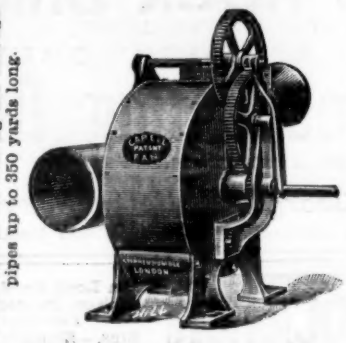

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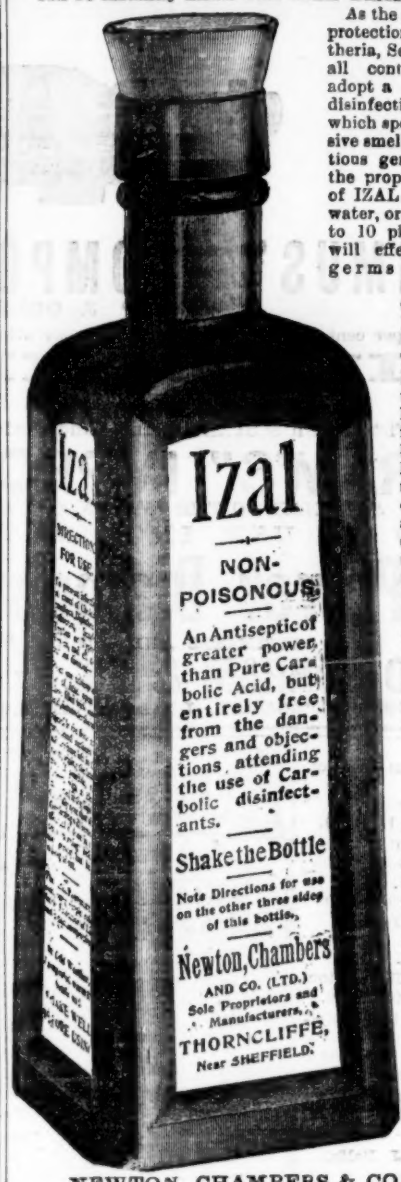
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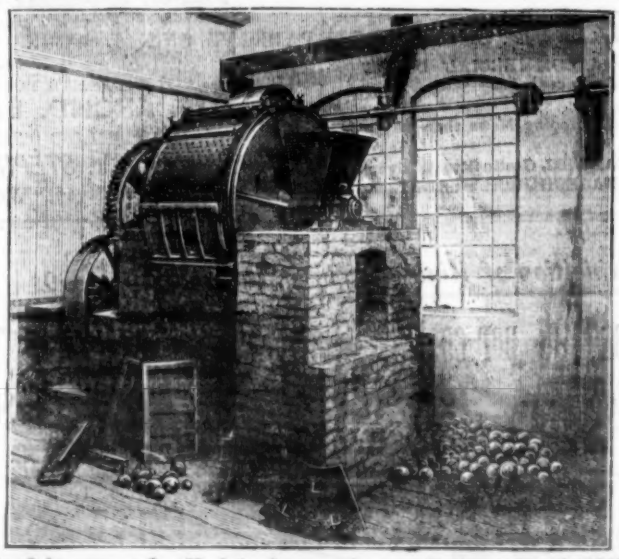

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System of Bilharz.

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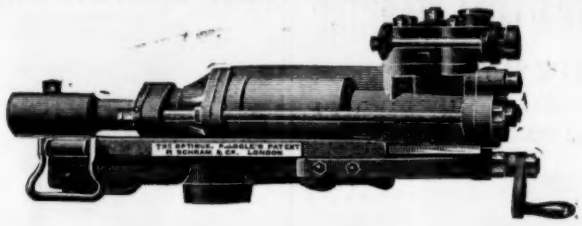
HERBERTON (WILD RIVER) TIN LODES NORTH QUEENSLAND.

Every information relative to the progress of lode-tin mining in the Wild River district (termed by geologists "The Cornwall of Australia") can be obtained by communicating with the undersigned. CHARLES JENKIN, "Herberton Advertiser" Office, Herberton, September, 1887.

REVOLUTION IN ROCK DRILLING



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WITH COMPOUND AIR AND STEAM CYLINDERS,

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From His Grace the Duke of Rutland.
Belvoir, Grantham,
December 1st, 1879.

SIRS,—Elliman's Royal Embrocation is used in my stables; I think it very useful.
RUTLAND.
Master of the Belvoir Hounds.

—o—

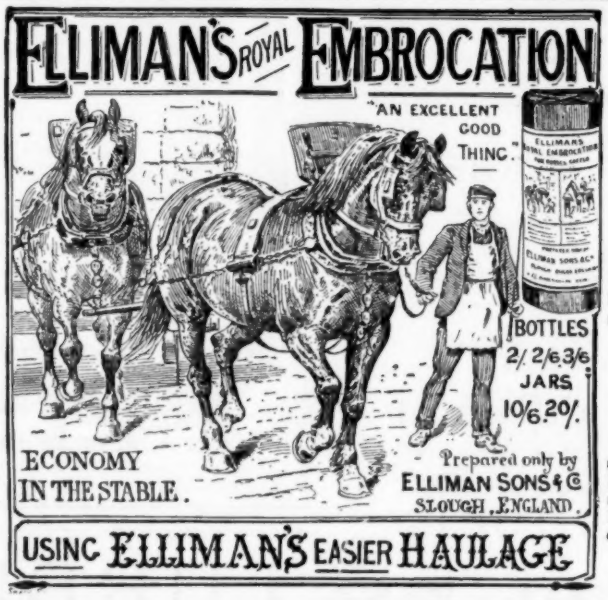
From the Earl of Harrington.
January 9th, 1889.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it the best that I can obtain. HARRINGTON.
Master of the South Wilts Hounds.

—o—

From Major M. J. Balfe,
South Park.
June 16th, 1892.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I can highly recommend it.
M. J. BALFE.
Master of the Roscommon County Staghounds.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ECONOMY IN THE STABLE.
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From Lord Haddington, Tyningham, Prestonkirk. N.B.
December 27th, 1885.

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HADDINGTON.
Master of the Berwickshire Hounds

—o—

From R. Burdon Sanderson, Esq., Warren House. Belford.
July 10th, 1892.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it very useful.
R. BURDON SANDERSON.
Master of Percy Foxhounds.

—o—

From Wm. J. Buckley, Esq., Penyfai. Llanelly.
July 16th, 1892.

DEAR SIRS,—I have much pleasure in recommending your Royal Embrocation. I always keep a stock in my stables and kennels. My farm bailiff has also found it of much value among my herd.
WM. J. BUCKLEY.
Master of Carmarthenshire Foxhounds.

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FOR ALL ENGINEERING WORK.

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Specially Adapted for MINING WORK

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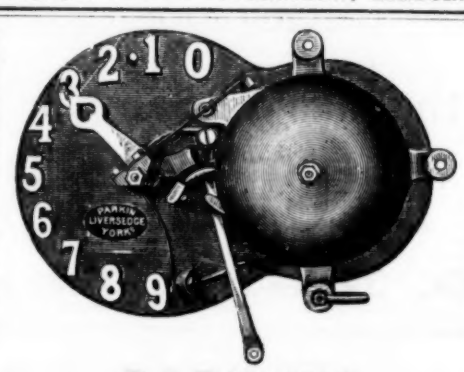

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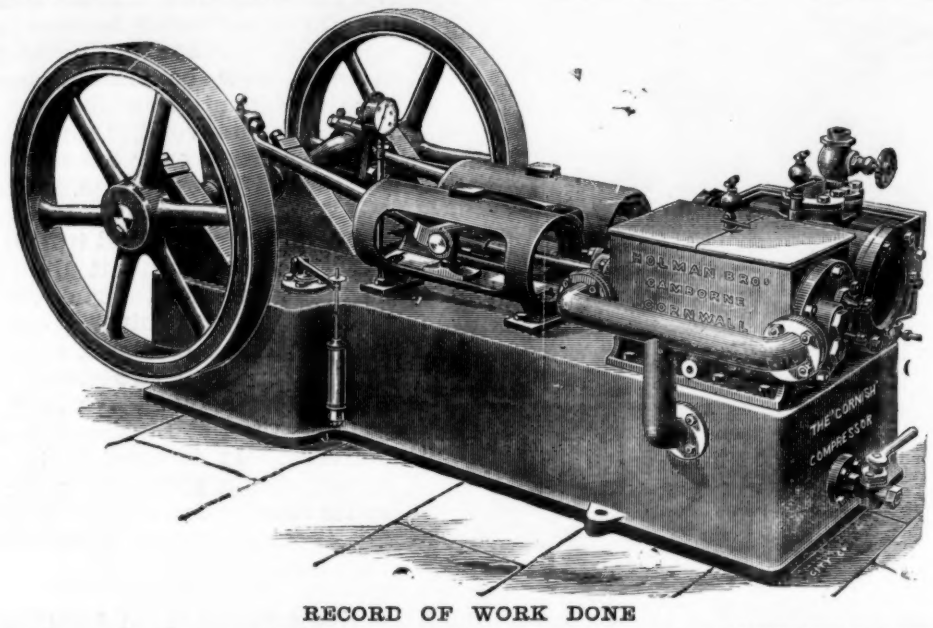

RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS,** equal to five times the Speed of Hand Labour.

At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES,** and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

Estimates for ROCK BORING PLANT and GENERAL MINING MACHINERY on Application.

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Jeffrey Machines for Undercutting Coal,

WORKED EITHER BY ELECTRICITY OR COMPRESSED AIR.

OVER 500 IN USE.

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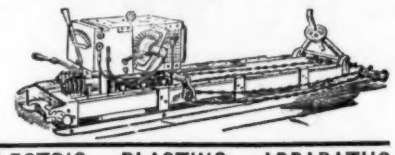

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HIGH OR LOW TENSION SYSTEMS.

REVISED CATALOGUE UPON APPLICATION.
SEC. A. MATHEMATICAL, MINING INSTRUMENTS, MINERS' LAMPS, &c.
SEC. B. ELECTRICAL PLANTS AND FITTINGS.

HENDERSON'S RAPID TRAVERSER.

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Highest Award at the Mining Exhibition, 1890.

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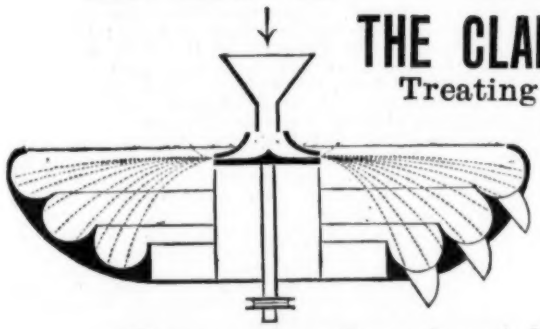

THE CLARKSON-STANFIELD CONCENTRATOR (LIMITED), are successfully

Treating the ores of Gold, Silver, Copper, Lead, Tin, Zinc, Cobalt, &c., &c. of all degrees of fineness, from 30 to the finest meshes by their **NEW MACHINERY** which may be seen in operation at

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Homogeneous substances, such as Emery, Glass, Sand, Sulphur, Black Lead, &c., graded according to size in one operation.

Terms for Experimental Concentration, and for Supply of Machines on Application.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs. Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

15383 Walter Sylvester, Longport, Staffordshire.—Improved appliances for use in withdrawing "props" and the like bars used in supporting the roofs and sides in mines.—August 13.

15045 Thomas Henderson, 4, South Street, Finsbury, London.—An improved tubular sectional steam boiler.—August 13.

15419 William Kirkley Birkinshaw, 323, High Holborn, London.—Improvements in or relating to miners' picks, or the like.—August 13.

15435 Walter Bagshaw, 37, Wilford Grove, Nottingham.—Springs for packing or expanding rings of pistons for steam, air, gas, or other engines, pumps, and the like.—August 14.

15454 Dougal James Mackenzie and William Martin, 45, Southampton Buildings, Chancery Lane, London.—Improvements in boiler furnaces.—August 14.

15470 Alexander McDougall, 6, Lord Street, Liverpool.—Improvements in or relating to the prevention of explosion and ignition of inflammable gases and coal dust in coal mines and apparatus connected therewith.—August 14.

15562 Henri Joseph Piron, 4, South Street, Finsbury, London.—Improvements in or relating to fire grates for furnaces.—August 15.

15590 Henry Norwood Brent and Francis Marsh, South Weald, Essex.—Improved machinery and other belting metal lined.—August 16.

15604 Charles Craig, William Craig, and George Kerr Craig, 2, Newcastle Street, Strand, London.—Improvements in apparatus for washing, separating, or concentrating metallic ores or substances of different specific gravities.—August 16.

15626 Thomas Thomas, 1, Furnival Street, Holborn, London.—Improvements relating to miners safety lamps.—August 16.

15647 John Barlow and others, 1, Brougham Chambers, Wheeler Gate, Nottingham.—An improved adjustable and reversible drill rest for lathes, boring and other machines.—August 17.

15667 William Graham and John Smith Fleming, 41, Reform Street, Dundee.—Improvements in condensation lubricators.—August 17.

15683 John MacKay, Andrew Young, and Arthur Hardy, 18, Northumberland Chambers, Newcastle-on-Tyne.—An improved combination tube expanding drift.—August 17.

15697 Charles Everard Beaumont and another, London.—Improved arrangement of appliances for operating the valves of central valve engines.—August 17.

15669 Carl Finger, 53, Chancery Lane, London.—Improvements in steam boilers.—August 17.

SPECIFICATIONS PUBLISHED.

14,434, Couch, steam boiler furnaces, stores, &c., 1893; 14,612, Conroy, rotary engines, 1893; 14,856, Northcott, steam engines, 1893; 17,742, Rhodes and Metcalfe, reducing condensation in steam cylinders, 1893; 18,176, Bentley, drilling, boring, and tapping machines, 1893.

The above specifications published may be had of Messrs. Rayner and Company, 37, Chancery Lane, London, at 10d. each including postage.

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*** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Coal, September 3 (*Burton-on-Trent*).—For twelvemonths' supply and delivery of seconds and nuts, or first screenings, for the Burton-on-Trent School Board. Sealed tenders, endorsed "Tenders for Coal," to reach Mr. W. N. Graham, clerk, by September 3.

Boiler, September 4 (*Widnes*).—For supply of a steel Lancashire boiler, for the Corporation. Specifications, &c., from Mr. Isaac Carr, Gasworks, Widnes.

Steam Roller, September 7 (*Walthamstow*).—For supply of a 10 ton steam road roller for the Local Board. Specifications, &c., at the office of the Surveyor, Town Hall, Walthamstow, Essex. Sureties will be required.

Hot Water Apparatus, September 6 (*London*).—For engineering work in connection with hot water supply apparatus, &c., at the Western Hospital, Fulham, S.W. Plans, &c., at the offices of Messrs. A. and C. Harston, 15, Leadenhall Street, E.C.

C.I. Pipes, September 11 (*Swansea*).—For supply of between 12,000 and 13,000 tons of c.i. pipes and castings to be delivered at various railway stations in the Swansea Valley, for the Swansea Town Council. Printed copies of specification and particulars can be obtained from the Waterworks Engineer, Guildhall, Swansea, on payment of one guinea, which will be refunded on receipt of a *bona fide* tender. Sealed tenders to be delivered, accompanied by a cheque for £30, as a guarantee of the *bona fides* of the tender.

Coal, September 18 (*Workington*).—For supplying and delivering at the London and North Western Railway Station, Workington, of about 6000 tons of gas coal for the gas committee. Tenders to Mr. John Warwick, Town Clerk, Town Hall, Workington.

Coal, September 24 (*London*).—Tenders for supply of coke, required for the Cape Government Railways for the year 1895, will be received by the Agent-General for the Cape of Good Hope, 112, Victoria Street, S.W. Forms of tender and conditions can be obtained from the Agent-General's Office.

Sinking Shaft (*Ossett*).—For sinking shaft to the top and low Haigh Moor seams. Tenders to Victoria Mills, Ossett, Yorks.

Steam Boilers (*Wakefield*).—Tenders required by Messrs. McPhail and Simpsons, engineers, for the supply of seven steam boilers, Lancashire type. Applications to Messrs. McPhail and Simpsons, Calder Works, Wakefield.

OUR INQUIRY COLUMN.

TO CORRESPONDENTS.

Correspondents will please take note that all communications will in future be answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

REPLIES.

A. B.—Will you kindly send us a specimen. It is entirely new to us

R. J.—We are much obliged to you for your opinion. We have received numerous other complimentary letters. The district to which you allude is certainly a most promising and progressive one.

SHAREHOLDER.—The price has risen considerably this week, so much so that the shares are almost unattainable.

INVESTOR.—Certainly not.

A. G. H.—1, 2, 3, and 4 are speculative, but as the market is expected to improve it would be as well to hold on for a time. Sell on any fair rise. (5) Sell on any spurt. (6) It would be libellous to give an opinion.

AURUM.—(1) Speculative, but as nitrate shares are looking up, worth buying a few to hold temporarily.—(2) These shares are quite high enough.—(3 and 4) Do not buy.—(5) Will very likely rise.—(6) In view of their high price best left alone.—(7) Sell on a fair rise.

CROMPTON AND COMPANY.—An extraordinary general meeting of the shareholders was held on Wednesday at the offices, Mansion House Buildings, when Mr. R. E. Crompton, who presided, moved the confirmation of a resolution passed on the 13th inst., to the effect that the capital of the company be reduced from £300,000 to £280,000 by cancelling paid-up capital which has been lost, or is unrepresented by available assets, to the extent of £20,000; and by cancelling 4000 ordinary fully paid up shares of the company, numbered 2785 to 6784, inclusive, which have been issued. The Chairman said the objects of the resolution were fully explained at the previous meeting, and there was no need to add anything to what the Chairman then said.—Mr. Hawkins seconded the resolution, which was unanimously adopted without discussion.

DAVEY, PAXMAN & Co.,

Engineers, Colchester.

MAKERS OF

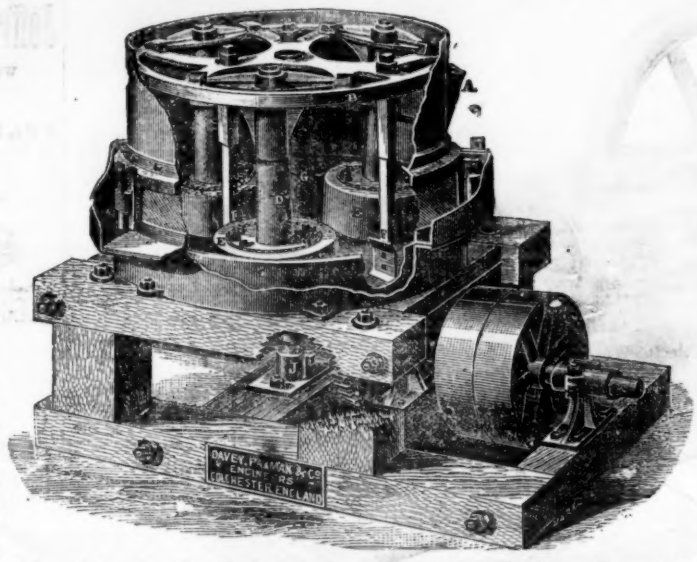
ENGINES, BOILERS, PUMPS

AND ALL DESCRIPTION OF MACHINERY FOR MINING.

DAVEY, PAXMAN & Co., are SOLE Licensees and Manufacturers of the Huntington Patent Centrifugal Roller Quartz Mill for the whole World, excepting the United States of America, Mexico, and Australasia.

Telegraphic Address:

"PAXMAN, COLCHESTER."



Huntington's Patent Centrifugal Roller Quartz Mill for fine pulverizing in Concentration.

LONDON OFFICE
78 [late 139], QUEEN VICTORIA STREET.

D. P. & Co., after a great number of careful experiments have so improved and perfected the Huntington Mill that it must now be classed among the greatest inventions of the age. The excellence of its work is undoubted, and its superiority over Stamp Mills will soon cause a revolution in its favour for Quartz Crushing. Its first cost, and cost for freight and transit is much less than for stamps, it absorbs about half the power for the same output, and is continually crushing. It can be fixed and started in 12 hours, requiring for foundations only two pieces of timber 12 in. by 12 in. by 14 feet long, is more reliable than stamps, and has perfect delivery. It is used to its greatest advantage on gold quartz, for, because of its excellent amalgamating properties, it catches about 75 per cent. of the gold put into it.

Full Particulars on Application to

DAVEY, PAXMAN & Co., Colchester.

MECHANICAL ENGINEERING:

MACHINERY, MINING and RAILWAY PLANT, &c.

Illustrated Descriptions of New and Standard Mechanical Appliances, Accessories and Processes, adapted to Mining, Metallurgical, Railway, Engineering and other Industrial Purposes.

THE "FEDERATION" PICK.

WE illustrate and describe in this article a novel kind of combination pick introduced by the Federation Patent Pick Company, of Derby, and the invention of W. K. Birkinshaw, of the same town. The implement, as will be seen, consists in the provision of interchangeable tools, capable of fitting into a universal holder or socket. The great point of the invention is that it will admit of the various tools shown on the illustration to be used in the same pick head, with the additional contrivance of a hollow (oval tube) handle, if desired, in which half-

a-dozen pick points can be carried. Amongst the chief advantages attained by the design may be mentioned the facilities afforded for working in cramped positions, or limited spaces, upon removing one of the pick blades and using the appliance after the manner of an adze. The inventor claims that they are far more economical and portable than ordinary picks; that they entail less labour, and are made of a superior quality of steel. There are no loose wedges or other detachable parts to fall out and get lost, as the whole tool is self-contained.

ADVERTISEMENTS IN GOVERNMENT PUBLICATIONS.—The following letter has been received by the secretary of the Newspaper Society in acknowledgment of the memorial forwarded to the Earl of Rosebery protesting against the insertion of advertisements in Government publications:—"Downing-street, August 27, 1894. Sir,—I am desired by Lord Rosebery to acknowledge the receipt of your letter of the 21st inst., which he will take an early opportunity of discussing with those of his colleagues who are principally concerned in the matter. Yours faithfully, Geo. A. Murray.—H. Whorlow, Esq."

CHAMP D'OR GOLD MINING COMPANY.

Opinions of a South African Contemporary.—Confirmation of our own Statements.

THE wonderful results obtained lately from this Botha's Reef Mine, after a period of inactivity, have naturally given rise to considerable argument as to where the rich ore was being obtained, says the *South African Financial Record*. Some have averred that the eyes of the mine were being picked out, while others have maintained that the property was being worked in a legitimate manner. We have, therefore, made a detailed inspection of the mine, and herewith lay the evidence gathered before the investing public.

The Champ d'Or French Gold Mining Company is bounded on the west by the Midas Battery claims, now owned by the Champ d'Or Deep Level Company; the east extension is occupied by the Teutonia; while the deep ground to the south also belongs to the Champ d'Or Deep Level Company. The property consists of 48 claims on Botha's line, and is divided into three distinct working sections by two dykes striking across the formation in a diagonal direction.—Western Section. This has an extent from the outcrop to south boundary of about 300 feet, and is roughly 900 feet in length. Owing, however, to the oblique strike of the dyke, which separates it from the central section, the length of the mine at the 270 feet level is little over 600 feet. It is exploited by two small incline shafts (Nos. 1 and 2). There are two reefs; the main reef, and about 20 feet south, the south reef leader. The main reef, varying in width from 2 to 6 feet, is generally of low grade, and except near the large dyke on the east, where a good patch of rock occurs, has not been worked. The manager, however, estimates that there are still 3000 tons in the upper level east of No. 2 shaft, which will pay to mill. The south reef leader varies from 5 to 6 inches in width, and is stoped for 2 feet.—Central Section. The division of the property from which the largest portion of the ore now being mined is obtained, and which has given the brilliant returns of the past few months, is the central section. It is separated from the western and eastern sections by the two dykes before referred to. The average measurement of this block from the outcrop to the south boundary is 1000 feet, but there is a possibility of this dip ground being somewhat diminished by the future action of the east fault. Approximately the length along the outcrop is 900 feet, but again, on the other hand, this increases in the lower levels by the gradually diverging courses of the faults. Two incline shafts, Nos. 3 and 4, are used in working this section, No. 3 being the principal hauling shaft. Connections are made at the 100, 220, and 340 feet, by means of separate levels. Levels Nos. 1 and 2 are driven to the limits of the section on each side, all rock above No. 1 being practically stoped out. No. 2 level is continued into the eastern dyke with the intention of proving the reef on the other side, but the wet nature of the formation stopped the drifting. No. 3 level is being energetically pushed east and west. The shaft is sunk 100 feet below this point, and a fourth drive will be started at 120 feet on the incline, giving a good area of backs to stope from. There is an intermediate level between Nos. 2 and 3 with various winzes and crosscuts. As in the western section, there are two reefs, the main reef and south reef leader, the main reef varying from 3½ to 6 or 7 feet, and the south reef leader from a thin streak to several inches. It is from the main reef that the majority of the rock is obtained. The south reef leader is exceedingly rich, and is stoped out with the encasing sandstone for a width of 20 inches. There is also a north reef, which, however, is of poor quality, and is only mined when it approaches near enough to the main reef to be taken in the same stope. No serious faults or breaks are to be found in this section—in fact, the formation is generally of a regular and unbroken character between the dykes, the main reef, especially, being a magnificent body of banket, running more or less uninterruptedly through the whole section. The oxidised zone extends down to the third level, but below this, the conglomerate is harder and begins to assume a pyritic character. Mr. Phillip's estimate of the ore in sight in this section are as follows:—Main reef, second level, 6177 tons; third level, 8287 tons—14,464. South reef, second level, 7015 tons; third level, 3802 tons—10 817; total, 25,281 tons. The ore tonnage, therefore, developed, although not excessive, is satisfactory. Sinking and driving are now being carried on at a good rate of progress, as the footage for the last three months will show:—For April 600 feet, May 800 feet, June 730 feet. Owing to the absence of an assay plan or any detailed sampling results, it is impossible to form an opinion as to the value of the ore in sight. Mr. Phillip is now at work on new plans of the mine, and when completed an assay plan will immediately be compiled. Certain disparaging remarks having been made as to the stoping out of the rich leader, a careful examination showed that for the last three months the proportion of south reef milled to main reef was less than one-sixth. The steam pumps used for draining the central mine are going double, but an electrical pumping plant for raising 15,000 gallons an hour to a height of 500 feet vertical, is under order and should be at work with as little delay as possible, but it is a question whether it would not have been better to have erected a Cornish pump.—Eastern Section. This section measures 500 feet along the outcrop, and has a dip of about 750 feet. It has never yet been systematically exploited, and as at present no work is being done there, the value of the reef is more or less problematical. The reefs at the outcrop have a dip of 57°. We would recommend that sinking be recommenced in this section, with the object of opening and proving this part of the property, and in any case connection will have to be made with the surface for ventilating purposes.—Life of the Mine. The life of the entire property on a rough estimate may be put at about 12 years, always allowing that the dip and continuity of a reef is an uncertain quantity. This may be arrived at approximately as follows: the dip of the reef at the lowest point touched in No. 3 shaft, *i.e.* 450 feet on the incline, is 45°. From this point, taking the average dip of the reef as 35° until it leaves the property, we get a total measurement of backs in the central section of 1300 feet for the main reef, and 1250 feet for the leader, allowing an average width of 4½ feet for the former and 2 feet for the latter, and deducting a good percentage for poor zones and faults, this works out at a total tonnage for the central mine of about 500,000 tons. Of this, in round figures, 106,000 have already been milled, leaving an available tonnage of 394,000 tons. On the basis of the 40 stamp mill at 4000 tons per month, this means 8 years life for the section. Only a rough approximation can be made of the quantity of rock in the Eastern Mine. An average dip of 40°, and a total width of reef of 6½ feet, gives a tonnage of 250,000, or rather over 7 years milling. The surface machinery is old and much worn. The battery consists of a light 40 Sandycroft stamp mill, the working parts of which have recently been renewed. The frame is very firm considering the amount of work the mill has performed. Challenge feeders are fitted to the battery, and concentration blankets are used. 700 screening is used, which enables a large amount of rock to be put through the mill without running it to pieces. The whole of the mill plant is driven by a long stroke single cylinder Marshall and Sons' engine of 75 horse-power. Steam is supplied by a 65 horse-power Ruston Proctor multitubular boiler. Another boiler of the same type is to be put down shortly. The crushing and sorting house lies in an excavation at the back of the mill. A Gates' crusher is to supersede the Blake Marsden breaker now in use. The cyanide plant has a capacity of 4000 tons monthly. Two large settling vats are being built, and are to be fitted with Butters' patent bottom discharge doors and distributors, for equally distributing the slimes and tailings throughout the vats. It is estimated that there are still 10,000 tons of old tailings as yet untreated, which have a value of about 4½ dwts. These constitute an important asset of the company. For the last three months the working expenses have averaged 20*s.* per ton, which however, include all development for the month and cyaniding costs of 5*s.* per ton. Five thousand pounds are to be spent in certain improvements and additions to machinery, which will have a tendency to cut down the costs; against this must be set the fact that mining in the near future will have to be carried on almost entirely in the blue. The company has paid off the whole of its debt of £36,000, and has now between £5000 and £6000 balance at its bankers. Its financial position is, therefore, eminently satisfactory. Mr. Chouan estimates that he will be able to win from 11 to 12 dwts. over the plates, leaving 4½ dwts. to the tailings, and on these figures leave a monthly profit of from £5000 to £6000. In conclusion, we have to record our conviction that the mine is being fairly and honestly worked, and that no undue attention is being paid to the south reef over the main. It must, however, be borne in mind that the only proved section is the central, which may be computed to last eight years. Should the eastern prove on exploitation, to be of equal value, the life of the Champ d'Or should be a particularly happy one. Under any circumstances, it seems certain that shareholders have a valuable property, which should give payable returns for some years to come.

THE GOLD FIELDS OF SOUTH AFRICA are now casting their nets in a new direction for deep levels, and have now established themselves at the Nigel. Recently they have acquired the blocks of deep levels adjoining the Nigel mynpacht, known as the Morse and Geordie blocks, comprising some 84 claims. This property is surrounded by the English and Pearce and Bowness properties, and has been floated for £125,000 under the parent title of the Nigel Deep (Limited). The Gold Fields has subscribed to some 60,000 shares, while Messrs. Berlein, Dettlebach and Barba figure with some 50,000 of the shares, the small balance being completed by a number of small shareholders. Mr. James Durban is the figure-head of the company as Chairman. For the sake of the whole Nigel district, it is to be hoped, says the *Standard and Diggers' News*, that the Gold Fields will soon begin operations to prove the value of the district.

REVIEWS.

A MINER'S GUIDE.

Mining and Engineering and Miners' Guide. By Henry A. Gordon, Inspecting Engineer, Mines Department, New Zealand. (Published in Wellington, New Zealand, by S. Costall, Government Printer; and in London by Eyre and Spottiswoode.)

The present work is a much enlarged edition of the "Miners' Guide," which was published by the author in 1889, and its object is to embody under one cover a vast amount of information for the use of students and others desirous of qualifying themselves for the position of managers, and for this purpose the work is divided into two parts—Mining and Engineering. The first three chapters are devoted to the study of the precious metals, the principal metalliferous ores occurring in New Zealand, and a *resumé* of the theories relating to the formation of lodes; and in the fourth we come to the actual practical work of mining and stoping, and of underground work generally. Our readers will remember that we have in these columns, over and over again, pointed out the disastrous effects of bad management, and we are pleased to find that the author endorses our views, for after describing the attributes of a good manager on much the same lines as we have, he goes on to regret that "in the colonies many men are pitchforked into positions, the duties of which they know very little about, and hence the many failures in working mines, so that they shall prove payable ventures." We feel sure that we shall hear fewer complaints of this kind if those about to enter the profession will make a serious study of Mr. Gordon's book.

The information given as to the timbering of shafts, levels, and stopes is very valuable, and the author is quite right in laying stress upon the fact that it is more economical to err upon the side of excessive strength in the timbering of the main roads than to put in defective work at the beginning, and ever afterwards be troubled with dangerous and costly repairs. The constant supply of proper tools to the men underground is another point upon which we have cause from experience to agree with Mr. Gordon. It is just one of these matters, which, small as it may seem, makes all the difference between good successful and slovenly disastrous management. To point out that men cannot work without tools seems almost too absurd and elementary, and yet we have known instances where the miners were constantly allowed to leave their work and take their damaged tools to the smithy for repair, instead of taking in a full supply with them, or if the number of tools was limited of having boys to carry them backwards and forwards.

Leaving the question of deep mining, which the author has treated with knowledge born of experience, he next proceeds to alluvial mining, and includes in this the making of shafts and the driving of levels in loose gravel and sand, where special precautions have to be taken with the timbering. This is followed by a chapter on hydraulic sluicing and elevating, and then we come to explosives and their use. The first part of the book is then brought to a close by chapters on the important subjects of ventilation and surveying. The whole of these subjects are treated of in a clear and concise style, and although we have nothing but praise for the work which has been done, we must express our regret for that which is undone or not attempted at all. The most prominent and important item which strikes us in this direction is rock drilling, which certainly, in our opinion, should have found a place in this book, seeing that hardly any mine of importance is now without its air compressing and rock drilling plant.

Leaving now the first portion of the book, which is devoted more to underground work, we pass on to the second half treating of the engineering, surface arrangements, and concentrating machinery employed. Seven chapters are taken up with hydraulics, the flow of water in sluices, pipes, and flumes, together with the construction of these latter and of the dams and reservoirs in which the water is impounded, concluding with a description of the principal water motors, and the formulæ by which their power may be ascertained. The next two chapters treat of steam boilers, engines, strength of materials and winding ropes, and then we come to the machinery for the crushing and concentration of metalliferous ores, a subject upon which a good deal has recently been written in the columns of *The Mining Journal*. The author goes over the old familiar ground, describing all the well-known crushers, feeders, stamps, and pulverisers, and then under the heading of Amalgamating Machines, gives us some figures, with which we were fairly startled, relative to the small percentage of gold saved by amalgamation in New Zealand. The mill managers were confident that they were realising about 75 per cent. of the bullion, but the results of several tests made in 1893 by the director of the School of Mines showed that the five instances give the total gold recovered from the plates, Berdans, and pans, was respectively 51·5 per cent., 22·3, 42·9, 51·1, and 40·3. It appears that in the Australasian colonies, no regular assays are made of the ore or tailings, and the millmen go on from day to day in the happy belief that the percentage of precious metals lost is very small. The chapter on amalgamating machines deals fully with the subject, and describes some pans which are new to us. The following chapter on the Concentration of Ores is, however, singularly meagre, and the whole subject is disposed of in a dozen pages. With this we must confess that we are disappointed. The few remarks which are made refer mostly to the concentration of gold ores, no example of a concentration mill is given, classification without which perfect concentration is impossible is not mentioned. Jiggers are dismissed with an observation to which we would especially call the attention of our Cornish friends "that they are very good concentrating machines for coarse pulverised ore, but they are used more in dressing tin ore than for the concentration of auriferous and argentiferous ores." When a new edition of this book is called for, we trust that the author will pay the attention they deserve to the classification and concentration of minerals generally, without which we claim that a "Miners' Guide" is incomplete, even if the last chapter on the strains of bridges has to be sacrificed to make room for these subjects.

The Cyanide Process claims a chapter to itself, and several installations in New Zealand are fully described. The process seems to be worked with as great success there as in the Transvaal, the percentage of gold extracted varying between 85 and 95 per cent. of the contents of the ore.

We should have liked to have seen more space devoted to the drainage of mines, and we think that the modern progress made in the introduction of electricity as a lighting and motive power in mines both above and below ground deserving of a fuller notice than the couple of dozen lines on which the whole subject is summarily dismissed.

This is, we believe, the first time that a technical book published in the Antipodes has been brought to our notice, and we welcome it not only on this account, but also for its real value as a contribution to mining literature. It is well got up and well illustrated, and as we said at the commencement of this notice is a book, the study of which we can decidedly recommend not only to students but also to managers.

FIFTY-EIGHT gold prospecting licenses are to be issued in Burma shortly.

MECHANICAL TREATMENT OF GOLD ORES.

The Murphy Process—Automatic and economical.

IT is a well-known fact that many gold-bearing deposits in several Southern States are yielding unsatisfactory returns, owing to the difficulties encountered in extracting the metal, says the *Canadian Colliery Guardian*. New methods in this industry are, therefore, of general interest to the large number of owners and developers of such properties. The following article on the Murphy gold process, prepared by Mr. J. G. Murphy, the inventor, may offer some useful suggestions in this direction.

Modern investigation shows us conclusively that for knowledge of free-milling gold ore we appeal to scientific books and treatises in vain. This will be shown in what follows. It is a singular fact that for free-milling gold ore, so called, no milling process was devised that would save the values contained in the ore closer than 70 to 80 per cent., and in many cases less than 60 per cent. Many mines are not operated for the reason that a sufficient percentage of the gold contained in the ore could not be saved at a sufficiently low rate for treatment to render the operation profitable.

Gold mines are variable in the character of their output—first, with respect to the value of the ore per ton; and, second, with respect to its metallurgical character. There are other differences, but in what follows we have to consider these two conditions alone.

Is a gold mine valuable? The question involves a knowledge of the values of the ore per ton and the cost of the treatment. The cost of treatment depends upon the character of the ore. The common operations for the extraction of gold are milling and smelting. The cost of milling per ton in a mill of, say, 40 stamps, will not exceed $1·25 per ton (a high estimate). The charge for smelting is $15·00 to $20·00. It is apparent at once that ores which would not be commercially profitable for smelting would pay handsomely if milling were possible. In general milling ore would not pay for the cost of smelting unless it was exceptionally rich. Suppose an ore to be worth $8·00 per ton, but is, nevertheless, free milling, an exceptionally high saving by the milling process as now conducted would be 75 per cent.—75 per cent. of $80·00 equal $60·00; less $1·25, cost of milling, equal $58·75. When the ore is sold to smelting companies they usually pay for 95 per cent. of the assay value of the ore and deduct $15·00 to $20·00 per ton for treatment—now 95 per cent. of $80·00, $70·00; less $15·00 or $20·00, cost of treatment, £61·00, or $56·00 net. In such a case as this it will be seen that there is but little choice between milling and smelting, as the increased saving by the latter method balances the difference in the cost of treatment. But the majority of gold mines will not yield ore of sufficient richness to pay the smelting charge alone. We often hear stories of mines which are said to yield ore to the value of $200 and more per ton. Samples can be obtained from any gold mine which will yield by assay $1000 to absolute gold approximating several hundred thousand dollars per ton, but on a commercial scale by carload lots there are but a small percentage of the mines that will yield ore of the average value of $10·00 per ton, but this value will not pay the smelting charges. In a majority of mines from which the ore is shipped to the smelters careful selection is needed, and often not more than 10 per cent. of the output can be shipped with profit. Of the total gold production of the world more than 90 per cent. is the product of mill and placer operations.

We now pass to the question of what constitutes a free-milling gold ore. The answer to this is by no means easy. In the usual acceptation of the term, it is an ore which will yield a sufficient percentage to the milling process to make the operation commercially profitable. Rock cannot be properly called an ore unless by metallurgical treatment it will yield a profit; hence we see that rock which will yield $20 per ton, but not free milling, cannot be properly called an ore, while a 10-feet vein of $8 ore (free milling) would be very valuable.

Is the product of a mine in which gold occurs in the native state correctly termed free milling in all cases? Let us examine this question with care. The stamp mill is the machine employed for the reduction of free milling gold ores. Briefly, it consists of a stem tappet, head and shoe, weight 650 to 1200 lbs.; the latter weight now in use in the Black Hills, Dakota. This weight is lifted by the cam, which is attached to the cam shaft, to a height of 8 to 14 inches, the latter drop being used in the Rigby mill, so called. The number of drops is 56 to 90 per minute, the smaller number of drops corresponding to the higher lift. This weight falls in a morter directly on top of a die of the same diameter as the shoe. This die will be on an average 4½ to 5 inches above the bottom of the mortar; the ore is fed into the mortar in modern practice by a self-feeder, and is crushed between the shoes and dies.

A quantity of mercury is fed directly into the mortar, varying in quantity with the richness of the ore. As the ore is pulverised the gold is liberated, which, falling to the bottom of the mortar, comes in contact with the mercury and is amalgamated. The amalgam so formed is saved in battery and outer plates of copper, the surface of which are amalgamated. We will not discuss this subject in detail, as we are dealing with principles only.

A current of water passes through the mortar, which is the power that discharges the crushed ore from the mortar. The discharge is through screens of 40 mesh (1600 spaces per square inch). The quantity of water used is 12 miners' inches, 144 gallons per minute for a mill of 60 stamps; or 1 miners' inch, 12 gallons per minute, per section of five stamps. It will be seen that the capacity of the mills depends upon the rapidity of discharge. The attempt to use 60 mesh screens has been made. This was found impracticable, because the capacity of the mill is greatly reduced and the screens clog and break from pressure. Of all the machines used in the metallurgy of gold, the stamp mill plays by far the most important part, consequently we should examine it with care.

We see that it requires a large quantity of water, that a 40-mesh screen is the finest that can be used economically; that the gold, when liberated, must be amalgamated and caught on copper plates. We have stated that in no case would the stamp mill save more than 70 to 80 per cent. of the total gold value. Let us seek the cause. The particles of which all rock is composed vary greatly in size. This is especially true of the particles of gold contained in any free milling ore. The coarse gold is, as a rule, saved in a well-conducted stamp mill operation. The fine, however, cannot be saved by this process. The cause of the loss has been assigned to the flowing away of fine gold in the current of water passing through the mill. I believe this to be true to some extent, but only the cause of a fractional part, The percentage of coarse and fine gold contained in ore is variable in different mines and different sections. Some mines, as the Gloster, Southern Cross, Red Lion, Broadway, &c., contain 40 to 80 per cent., often more, of the total value of the ore in the form of flour gold. These mines are rich in chemical value; commercially, however, the Gloster mill will not yield more than 50 to 60 per cent. to the stamp mill, the Southern Cross and Red Lion 25 to 30 per cent., the Broadway 40 per cent. For this reason, these mines and others have not been profitably and properly operated. The ores of these mines are of good grade for a milling operation, but not sufficiently rich for smelting. All the ore of the Gibbonville (Idaho) district fall under this head.

Among the rich and famous sulphuret mines may be mentioned the Moose and Dolly Varden, situated on Moose Hill, near Alma, Col.; the Gregory and Bobtail Mines, near Black Hawk, Col. These mines produced millions in gold ore, all of which was smelted in the establishments of Professor Hill, one of which was located at Alma and the other at Black Hawk. The ore was very rich, and in addition to the mining, smelting, and shipping charges, yielded the mine owners good profits. The gold in these mines was associated with copper pyrites and peacock copper bornite. I saw another mine equally and even more famous than either of those mentioned above, in which existed large chambers of mixed sulphuret, iron pyrites, copper pyrites, magnetic pyrites, and peacock copper, all rich in gold and treated by the stamp mill. This is the Cable Gold Mine, of Phillipsburg, Mont., owned by J. C. Savery, of Des Moines, Iowa. The writer made a detailed examination of that mine nine years ago. The mine was equipped with a 40-stamp mill. The gangue of the ore was chiefly limestone, in which occurred the large chambers of the sulphurets mentioned. It astonished me to see this ore all put through the stamp mill, and I even suggested to Mr. Savery that he was sustaining a heavy loss. He called my attention to the fact that he had an assay office, and invited me to determine the loss. My astonishment can be imagined when I found that the percentage of saving in the sulphuret was equal to that in the limestone. Investigation of this statement is invited. This absolute contradiction, not of statement, but, in fact, of all that had been written on the subject, caused me to examine all of my personal experience, and to consult others. The result was that more than eight years ago I reached a conclusion, which was announced recently in pamphlet form almost simultaneously by chemists of Boston and San Francisco—viz., that gold in pyrites is mostly, if not entirely, in the free state. The chemists who wrote the pamphlets announced the existence of gold in iron pyrites (their investigation does not appear to have extended further) in three forms—free, enveloped mechanically and chemically combined. The latter condition is said to be most rare. I doubt if the latter condition exists at all, and in the absence of proof, which is not furnished in the pamphlets, adhere to my opinion. Usually the size of a particle of iron pyrites or any other sulphuret contained in an ore is small; so small, indeed, that they will readily pass through a 40-mesh screen, the size of screen used in a stamp mill. If gold is contained in such pyrites the stamp mill would not save it, as it would pass through the screen unaltered.

Let us now think over the preceding matter carefully, and then see if we can decide the cause of the loss of flour gold, and why the gold in pyrites is usually lost in a milling process. Is the heavy loss due to the flowing away of flour gold by the current of water passing through the mortar, or is it due to the fact that the rock is not broken sufficiently fine to free the gold from the gangue? The great percentage of pyrites found exists in small particles. If pulverised sufficiently fine, can any contained gold be amalgamated? We have now reached a proper point for discussion of the Murphy gold process.

This process may be considered worthy of consideration from a single fact—viz, that investigation is asked. The designer will be glad to have errors pointed out and improvements suggested. This process, designed by myself for the Hartford Syndicate (Limited), comprehends the union of several well known machines. If any of these can be beaten for its special department, I will be glad to know it and give the substitute its proper place.

The essential features of the Murphy gold process consist of pulverising to a fine state of division, and even to an impalpable powder if the fineness of the gold demands it; then the formation of a pulp of the consistency of a thin paste in the well-known combination pan, to which we give preference, at the end of which are the usual settlers, also so well known that space for description would be wasted here. The effect of the arrangement of these machines would be—

1.—That no matter how fine the state of division in which the gold exists in the ore may be, it will be liberated from the gangue and rendered fit for amalgamation.

2.—That there will be no current of water to float the flour gold off.

3.—That the process can be employed in sections where there is not sufficient water to run the stamp mill.

4.—That at all stages the process is completely under the control of the operator, so that the batch does not need to pass from the pans to the settlers.

As to this process and how cheaply it will treat gold ores, the general description which follows, and a study of the plans will be an indication. The mill is entirely automatic, and but a single man at the rock-breaker is needed for a plant of 50 tons or more.

The ore as it comes from the mine is dumped on grizzlies. The fine material passes through, and falls to the bin; the coarse lumps fall on the crusher-floors directly in front of the crusher's jaws, which should be so set that they are on a level with the floor, thus avoiding lifting. From the crusher-bin, which is inclined, the ore passes directly to a set of rolls, where it is crushed to a 30 or 40 mesh screen (900 to 1600 spaces per square inch). After being crushed, the ore is elevated, and that which is not fine enough to pass through the screen goes back to the rolls; that which is fine enough passes through the screen into a bin which communicates with the continuous feed and discharge pulverising cylinder. This continuous feed and discharge pulverising cylinder is the machine to which special attention is called, and to the operation of which the success of the process is due. There are 3000 of these cylinders (old style) now in use pulverising flint and feldspar for use in the manufacture of porcelain and pottery. These machines can be seen in operation at Brandywine Heights, Del., South Glastonbury, Conn., &c. The fineness to which it is necessary to pulverise these materials for use is 200 mesh for porcelain and 250 mesh for glazed ware (40,000 to 62,500 spaces per square inch). This machine is patented and known as the Alsing cylinder, manufactured by the J. R. Alsing Co., 60, New-street, New York. For the amalgamation of gold it is not thought that it will be necessary to pulverise to 200 or 250 mesh. The ore, pulverised as finely as may be necessary in the cylinder, is conveyed by the discharge pipe to a bin, the bottom of which is arranged in the form of a hopper to feed directly into the pan. The remainder of the operation is exactly that used in a silver mill, and will not be discussed, as the operation is well known.

From the preceding description it can be seen that the operation is entirely automatic.

The cost of treatment, as has been shown, is of primary importance for gold ores that will not bear the cost of smelting charges. The cost of crushing by the rock breaker and rolls will

not exceed 40 cents per ton. The cost of pulverising to 200 mesh will not exceed $1 per ton when the ore is first put to a 30 or 40 mesh screen. Taking the total cost at $2 per ton for crushing, amalgamation, and retorting, it is seen that by this process we can treat the ore from a large number of mines which by the ordinary processes could not be made to pay until the amalgamation is completely determined by the usual method of panning samples.

5.—That 90 to 95 per cent. of the gold contained in any free-milling gold ore can be saved. This may and will likely be questioned. Apply the following test for confirmation: Take any free milling gold ore, pulverise to 125 to 200 mesh (generally 100 will do), take a casserole or other proper vessel, into which put the pulverised ore, wet to the consistency of a thin paste, take a common egg beater, and after introducing the proper amount of mercury agitate the mass for an hour. The result will show a saving of 90 per cent. This is not so perfect as the combination pan, however. The work of the pan is as follows:—The muller slaps the pulp out to the periphery, the spiders slap it back, thus making two lateral forces. The revolution of the muller creates a vortex of about 6 inches in diameter, in and out of which the material constantly passes. We thus have three forces to effect the perfect contact of the mercury with the gold; and, therefore, say that the Murphy gold process will save 90 per cent., even 95 per cent., of the gold contained in any ore, unless it contains elements which will foul, contaminate or consume mercury, such as native copper and the ores of lead. In the Broadway Mine there was a deleterious element in the gangue of the ore which operated against close saving. Professor Clayton was called upon to see if he could not devise some means to save more than 40 per cent. of the value contained in that ore. He spent considerable time in the endeavour to effect that result, but without success. The Professor informed the writer that the Broadway ore contained considerable talc in its gangue, which acted as a grease and prevented the union of the gold and mercury. I will not discuss this, but in the Murphy gold process the existence of talc as a part of the gangue would in no way affect the amalgamation. The whole thing is in the pan, and the forces mentioned are sure to bring about contact of the gold and mercury, which is all that is needed. It makes no difference whether the gold is contained in iron pyrites, copper pyrites, peacock copper, &c.; it will be collected and saved by this process.

TIN TICKETING.

A TICKETING for tin ores was held at Redruth, on Tuesday, with the following result:—

VALUES OF ORES SOLD BY EACH MINE.

	Tons cwts.	Per ton.	Value.
Carn Brea a	12 0	£38 5 0	£459 0 0
do a	12 0	38 7 6	460 10 0
do a	11 0	38 10 0	423 10 0
do b	3 0	26 0 0	78 0 0
do No. 2	2 0	28 7 6	56 15 0
East Pool a	17 0	37 2 6	631 2 6
do b	17 0	37 12 6	649 12 6
do No. 2	2 0	20 0 0	40 0 0
Dolcoath No. 1	11 0	43 5 0	475 15 0
do No. 1a	11 0	43 10 0	478 10 0
do No. 1b	11 0	43 15 0	481 5 0
Tincroft	15 0	36 17 6	553 2 6
do	15 0	37 2 6	556 17 6
do	3 0	22 2 6	66 7 6
South Frances No. 1	13 0	40 0 0	520 0 0
do No. 1a	12 0	40 7 6	484 10 0
Wheal Basset No. 1	17 0	44 17 6	762 17 6
do No. 2	3 0	29 15 0	89 5 0
Phœnix United	16 0	41 7 6	662 0 0
Killifreth	15 0	42 7 6	635 12 6
West Kitty	12 0	45 0 0	540 0 0
Wheal Agar	10 0	37 17 6	378 15 0
South Condurrow	8 0	45 5 0	362 0 0
Wheal Kitty	5 10	44 5 0	243 7 6
Hexworthy	4 0	46 5 0	185 0 0
	257 10		£10,273 15 0

Average price per ton £39 17s. 11d.

AVERAGE PRICES PER TON.

May 22	£41	0 0	July 10	£37	5 4
June 5	40	0 4	July 17	38	4 11
June 19	39	5 6	August 24	38	0 8
July 3	38	13 9	August 28	42	0 8

THE DE LAMAR GOLD MINING COMPANY.—James Healy, foreman of the properties of the De Lamar Gold Mining Company, Nevada, tells the *Tribune* that the Monitor, Jim Crow, and others embraced in the De Lamar group, are the biggest things he has ever seen in the way of exclusively gold propositions. The properties, he reports, have been opened up through six tunnels, four of which have been driven since May last, and entailed 2000 feet of development, which gives them a depth of 400 feet on the vein or 700 feet below its apex. The most important disclosures in this period of development were in the tunnels on the Monitor, where 16 feet of ore in two distinct places in the vein shows a general average of $100 per ton, the balance of 40 feet between walls returning not less that $15 a ton. How to handle these ore bodies is the problem the company is undertaking to master. They must have water, and drills are now boring at a depth of 300 feet, while near a spring the company is sinking a shaft, 6 by 8 feet in the clear, in the hope of striking the underground watercourse from which the springs are fed. At the same time a force of men is clearing the way for a mill. A tramway for the economical delivery of the ores is being constructed, and everything is being put in shape for the continuance of the production of gold from the bonanzas. Mr. Healy says he has satisfied himself that the property is on the same belt as that of the famous Raymond and Ely at Pioche, which was worked to a depth of 1800 feet, and is yet producing, and that it will be shown to contain riches just as permanent. A telephone line has recently been constructed between Pioche and the mine, 50 miles distant.

LOCATING THE PRESENCE OF MINERALS.—A new invention for locating the presence of minerals was recently tested at Vancouver, B.C., and, according to a colonial contemporary, the results were as startling as they were satisfactory. It seems that several curious citizens wrapped $30 in silver in a handkerchief, and, leaving the manipulator of the machine in town, went to the outskirts and hid the wealth. The invention, which in appearance resembles a box with a tin fog horn sticking out of one side, was then brought into play. At four p.m., as it was getting dark, the inventor and his machine were 600 yards from where the money was buried, and fearing they would not be able to see if they waited much longer, the committee in charge took the inventor within 200 yards of the spot. The tin horn or pointer of the machine was slowly moved in a circle when the operator suddenly stopped, while a faint rattling sound was heard inside the machine, the inventor remarking;—"When you hear that rattling sound it is the sign that I am in a direct line with the treasure." He then insulated himself with a rubber suit, and advanced cautiously, the machine continuing to rattle until a certain spot had been reached, when it ceased. He walked backward carefully until the demonstration inside the box recommenced, when the pointer was directed to the ground, and the treasure dug up. Our contemporary says this is not fiction, but fact; otherwise, we might not have felt quite sure about it.

SPECIAL CORRESPONDENCE:

COLONIAL AND FOREIGN.

OUR PARIS LETTER.

(FROM OUR OWN CORRESPONDENT).

New Enterprise in the Transvaal.—The Mozambique Company.—Gold Mining in Hungary.—French Capital in Bolivia.—Silver Mining in Bolivia.—A New Metallurgical Science.

WHETHER the French speculators who are so enamoured of Witwatersrandt gold mines are likely to "make their pile" out of putting their money into this branch of enterprise is a little open to doubt. The investing public over here is a credulous and eager one though timorous enough at times, and it is only natural that financiers in the midst of affairs in Johannesburg should get more than their fair share of profit in transactions with the Parisian *rentier*. Instead of claims being taken up and put upon the market by syndicates specially interested in mining, as is the practice in London, they are floated as part of the operations of the big banking corporations. Thus the Banque de Paris et des Pays Bas has lately purchased a block of 84 claims in the Transvaal from Mr. J. B. Robinson. The Bank is pledged to spend 100,000 francs in prospecting the property, and is then to float it in Paris, provided reports are favourable, with a capital of 5,000,000 francs. Of this sum half is to go to the vendors, who thus dispose of their claims for about 30,000 francs (£1200) a piece. This is much more than the market value of even proved claims on the Randt, and if recent advices from that quarter can be trusted, local financiers have lately bought a mine of 34 claims in a forward state of development, equipped with complete surface plant, and which has yielded an average of 6 dwts. per ton between £300 and £400 a claim (7500 to 10,000 francs).

There are rumours amongst those interested in the Mozambique Company of dissentions between the administration of the company and the Government at Lisbon, which are likely to seriously hamper the development of its territory. Mr. Alford's statements about the working of the concern only confirms what has long been felt in Paris as to the internal dissentions prevailing in it.

The holders of shares in the Urikany coal mines in Hungary are beginning to feel dissapointed at the absence of any definite results from this enterprise. When the company was constituted with French capital a couple of years ago the affair was boomed in a way to lead to the belief that the happy possessors would soon be in receipt of heavy dividends, and this hope was encouraged up to within a few months, when it was stated that the directors were on the point of recommending a small dividend that would still allow of a large balance going to the reserve fund. It is now certain that no dividend will be declared this year, and that the shareholders will have to wait another three or four years at least before they can expect any return upon their capital. The directors urge the importance of devoting all the profits of the undertaking for some time to come to the laying down of new machinery, and in other ways increasing the output. Before any dividend can be declared it is thought advisible that the yearly production should be increased to at least 200,000 tons.

An attempt is being made from official sources to interest French capitalists in the mineral development of foreign countries under the natural impression that the investment of capital will greatly facilitate commercial relations with new and growing markets. In South America French influence has extended considerably during the past year or two, and it is hoped to strengthen this position by employing French capital for the working of the mineral deposits. It is pointed out that Bolivia offers an excellent scope for such enterprise in the exploitation of the bismuth and antimony mines. At the Quechisha Mine, the monthly production of bismuth is about 23,000 kilos. and as the price is kept up by an understanding between the different producing centres, the prospects of this mineral are satisfactory. An enormous quantity of antimony is also to be found in the gold and silver mines in the department of Potosi, and the laying down of a new line from Antofagasta to Oruro has resulted in the working of very rich deposits of sulphurous antimony in the Province of Chayantia. Owing to the heavy decline that has taken place in the value of the regulus during the past few years, it is only found profitable to work mineral of high contents. The new Amayapampia Company does not export mineral containing less than 65 per cent., and in view of the difficulties of transport they can only send away about a quarter of their monthly out-turn of 100 tons.

The opening of the railway from the port of Antofagasta to Oruro, in Bolivia, a distance of 924 kilometres, has greatly facilitated the working of the silver and tin mines in the latter district, in which a large amount of French capital is employed. Three years ago a syndicate was formed in Paris with a view of ascertaining whether it would be profitable to work a mine in Oruro that had evidently been abandoned in past ages, and, as a result of its enquiries, a company was constituted in 1892, and set to work to develop the 69½ hectares of mineral property that had been acquired at Tétilla. It was eventually thought advisable to carry on operations upon a more extensive scale, and the capital was increased from 150,000 francs to 600,000 francs, and the property was placed under the direction of M. Emile Basadre Forero, and since that date the outturn has been rapidly increasing until the first six months of 1893 the production of mineral was 751,000 tons, containing 4176 kilometres of silver. A still further augmentation of production is now to be assured by the laying down of an installation of machinery upon the Fournier et Cornu system. It is feared that unless the values of the metal improve the profits of silver mining in Oruro may decline to an imperceptible point, but in the event of such a contingency the companies are prepared to go in largely for the development of the tin deposits which are thought to be very considerable in the neighbourhood of Oruro.

The metallurgical industry is likely to find a valuable aid in the new method of testing the quality and composition of metals that has just been brought into public notice. A commission was appointed by the Government in 1891 to consider some more trustworthy method than at that time existed, of testing constructive ironwork, and in a report that two of its members—M.M. L. Baclé and Debray—have now presented, some interesting details are given of the way in which the composition of metals can be ascertained by examination under the microscope. When magnified in this way, the molecular changes in the metals become distinctly visible, and these changes have a definite relation to the constituents of which the metal is composed. Each constituent has a characteristic appearance, which is conspicuous even when in a quantity so small as to be detected by chemical analysis. The presence of tin, phosphor, or aluminium, can be told at a glance, and the exact quantities of each can be easily ascertained. It is obvious that this method of determining the character of metals is of especial value in the case of alloys, where it is often necessary to have the various constituents in exact proportion, and as alloys are playing a very active part in metallurgy, the new science of "métallography," as it is called by French engineers, ought to be of great service.

MINING NOTES FROM JOHANNESBURG.

By H. BUSH, M.E.

Spes Bona.

When work is resumed, it is rumoured that development will be pushed ahead at the eastern end of the mine. With such favourable prospects it was a pity that the mine closed down. Judiciously managed large profits can be obtained. The new strike on the Wolhuter lode should be opened up, and the ore in the upper levels left severely alone, being too poor to pay, but the new lode will average 15 dwts., and will compare favourably with the Wolhuter, George Goch, and other good mines. The meeting of shareholders called many weeks since to consider proposals for reconstruction accepted as the most advantageous one proposed by the Barnato Brothers—viz., the old company to be wound up and a new company formed, present shareholders to have one new share for one old one with 10s. of a liability on £1 shares, the 10s. credited as consideration for the property. Barnatos guarantee the whole issue, £57,000, for a commission of 7000 reserve shares with no other option. The new company would then be in a position of having a working capital of approximately £16,000 and £29,000 reserve shares, which would be fully worth par. This would bring the figures to the original capital of the Spes Bona £150,000, but with a splendid future ahead! For some unaccountable reason the directors do not seem inclined to call the special meeting confirming the scheme, this having been practically passed by a full meeting of shareholders. It is stated that the directors, through their lawyers, have submitted a draft agreement, which Barnatos have not returned duly signed. On the other hand, it is stated with some authority that the directors are to blame, and are dilly-dallying for a specific purpose. A further debenture issue of £25,000 is a pet scheme of these directors, and this means the Spes Bona still retain their liability of £30,000, the mortgagees consenting to extend the time; but if this be carried through it will prove one of the greatest fiascos ever known, and the Spes Bona a few months hence will be in a worse plight than ever. The shareholders met and accepted Barnatos' scheme, therefore the directors should offer some explanation why the meeting to confirm it is not called. The delay means many hundreds of pounds monthly to keep the pumps going. The agreement as to details between the company's solicitors and Barnatos should be worried through, only after being confirmed by a special meeting. The directors' excuse is therefore frivolous. The mine is certainly a good one, but the Rand Wreckers have taken this property in hand to go the same way as many other good mines were defeated by the outcry from an independent source, and the striking of the Wolhuter reef, made public through the Press, when immediately the mine closed down. The Liverpool directors, after many weeks, wired to Johannesburg if there were any truth in these unofficial statements, and received a cable, in reply, that there was, but it appeared the local board thought fit to keep this information from their directors, and the shareholders as of not sufficient importance to warrant cabling; under such conditions it would be ruination to allow the mortgagees to still retain control of the mine, and this is what a second debenture means. Meanwhile, shareholders should hold fast to their shares, as at present prices they are absurdly cheap.

Glencairns.

In reply to rumours of a falling off in the returns three months since, and that the mine was not looking well, indignant denials were circulated through the Press. Between May and July the output decreased no less than 1600 ounces. The mine is showing considerable improvement now, and the outputs for the future will be largely augmented.

New Crœsus.

No improvement in the mine; the rumours of a rich strike unfounded. Mine development wants pushing ahead faster; the great expectations will never be realised; the shares in this company are over estimated, their true value should be under par.

New Primrose.

When the full number of stamps are working, the battery will very shortly afterwards be well ahead of the mine. These shares at present prices are quite high enough; the manager will have all his work cut out to develop the mine fast enough to meet the requirements of the battery.

City and Suburban.

This mine will be unable to make more than £9000 monthly. Shares are far too high.

Champ d'Or.

The only proved section is the central; this may be computed to last eight years. If the eastern section be of equal value, the life of the mine will be an exceedingly long and happy one. It can be estimated the average over the plates is from 12 to 13 dwts., and the tailings all through from 6 to 7 dwts. Certain disparaging remarks having been made as to the stoping out of the rich leader, careful examination showed for the last three months the proportion of the south reef (rich leaders) milled to main reef was less than one-sixth. About 3000 tons of ore in sight; this is very satisfactory, showing development to be a long way ahead of the mill. The eastern section measures 550 feet along the outcrop, and has a dip of about 800 feet. No work has yet been done on this portion of the mine. In the central section there are about 1300 feet of backs for the main reef and 1250 feet for the leader. Allowing for poor zones and faults, there is a total tonnage of about 500,000 tons, estimated to leave a profit of £2 per ton; so, roughly speaking, this section should return £1,000,000 in dividends before being worked out.

Champ d'Or Deep.

This mine is looking well, and the continual improvement in the Champ d'Or should be an incentive to this management to make an early start with the battery, from which good returns will be obtained.

New Chimes.

The reefs in the lower levels opening up exceedingly well; the amount of ore now proved of a very payable quality is extensive. The future output will be very considerably enhanced, and these shares as an investment are one of the cheapest lines in the Kaffir Circus.

[We have since learned that M. Barnato's scheme of reconstruction of the Spes Bona Company has been agreed to, and consequently it only requires confirmation at a meeting of shareholders to be called shortly.—ED. *M. J.*]

AMERICAN ENTERPRISE IN AUSTRALIA.

A METALLURGIST JOURNEYS FROM AMERICA TO AUSTRALIA TO INTRODUCE AMERICAN METHODS OF MILLING.

METALLURGISTS in America are somewhat concerned about the conservative spirit prevalent in Australia, and the tardiness exhibited there in introducing modern improvements in milling ores. They are, therefore, anxious to try and induce Australians to be more progressive, and to welcome with more zest and energy the innovations made in the methods of treating ores. Of course, we know they are a little backward in this respect, and are in need of a little teaching. As in our own Western county of Cornwall, they are too prone to rely on old and ineffective machinery. In fact, it has been explained that it is owing to the presence of the great number of Cornishmen in Australia that they are so conservative in the colony, and so reluctant to welcome the constant improvements introduced. This seems very plausible, and we are not at all prepared to deny it. We are great advocates of enterprise in mining, so long as it be of the legitimate kind, and in our anxiety to foster it we are willing to put on one side our patriotism. Hence we welcome this effort on the part of our American friends, for if Englishmen lack the energy to do it themselves, there is no reason why the world should stand still to suit their lethargic habits.

The name of the gentleman who has been deputed to carry out this plan of reforming gold milling in the colony is Mr. Louis Janin, junr., who has had many years' experience in various parts of the whole continent of America. His father and uncles are pretty well known in the mining world. He, himself, has been metallurgist to such companies as the Ontario Silver Mining Company, the Cusihuiriachic Mining Company, the Bunker Hill and Sullivan Lead Mines, the Blue Bird Mining Company, as well as consulting engineer to many others. He will, in all likelihood, start to-day (Saturday), and we wish him every success. Naturally, before commencing his voyage, he called at the offices of *The Mining Journal*, and communicated to us the nature of the enterprise he was about to undertake. Of course, we immediately interested ourselves in the scheme, and conceived the idea of publishing our conversation with Mr. Janin in the form of an interview. Without further introduction, therefore, we will let this experienced metallurgist speak for himself.

"We understand that you are about to visit Australia, Mr. Janin."

"Yes. I am going to Victoria in the interest of mining men there, with a view of introducing modern American improvements into their gold mills."

"The Australian milling has generally been considered satisfactory there, has it not?"

"Yes; and perhaps unfortunately so, but there can be no doubt there is room for improvements, which may both reduce expenses and save a portion of the gold which is now locked up in the tailings, or is lost entirely."

"What departures from the normal plant can you suggest?"

"There are several which can be readily suggested. For instance, it is apparent that in an ordinary mill the greater tonnage crushed without prejudice to the extraction of the precious metals the greater the profit, and the less the expense per ton of ore. Now Australian mills are not constructed with a view of crushing the largest possible tonnage. The careful preliminary crushing of the ore by rockbreakers, which, in that case, is essential, has been entirely neglected. Even such simple steps as running the ore as it comes from the mine over coarse screens, called grizzlies in America, are little appreciated in Australia. Self feeders are not used, although competitive trials in America have shown their advantage over hand feeding, not only in the reduction of milling expenses out in the quantity crushed. The shape of Australian mortars or coffers, as they are called there, is not well adapted to rapid discharge, and the use of round and slot punched Russian ore screens lessens the product of the battery. While in America we begin amalgamating the pulp in the mortar, recognising that as a more or less efficient amalgamating apparatus, in Victoria it is rather infrequently done. The results of the operations in nearly 100 American mills which I have visited have shown me that amalgamated copper plates are an efficient means of amalgamating the gold in the greater number of ores, and also, other things being equal, the greater area of the plates the better the results. It must not be understood, however, that I recommend a vast area of these plates. The amount will vary with the ore. Very fine gold requires a large area, while a small plate surface suffices for ores containing coarse gold."

"It has been the custom in parts of Australia to supplement the free amalgamation by Berdan pans. These are grinding appliances which, reducing the pulp to a fine stage, amalgamate a portion of the gold which is neither retained in the mortars nor caught on the riffles, mercury wells, or blankets. The use of these pans tends to a heavy loss in quicksilver, and is in itself a by no means inexpensive operation. I think it will be quite possible to do away with them."

"Then your purpose, Mr. Janin, is not to introduce new processes, but to improve on existing ones?"

"I can answer that question either way. I expect the greater portion of my work will be, as I stated, in adding American improvements to already existing plants, without altering the systems employed, since they are substantially the same in both countries. At the same time, the character of the ore is undergoing a change in many of the mining districts. At Clunes, for instance, a smaller portion of the gold is being saved each year in the mortar boxes and mercury wells, while the amount recovered from blanket washings is on the increase. This shows that a greater portion of the gold is in combination with sulphides, such as iron pyrites, and is the direct result of deeper mining. These blanket washings at Clunes are treated by amalgamation in Chilian mills which, it is true, extracts a very fair percentage of the gold, but at an enormous expense, owing to the great loss of mercury. It is part of my commission to see if these concentrates can be treated more cheaply. To effect this we have the choice of two processes, chlorination, and the cyanide process. Of the two, when the ore is suited to it, I prefer the latter. Results in treating South African concentrates by the latter process are enough to make any metallurgist open his eyes. From having been somewhat of a scoffer I have become an appreciative, if not enthusiastic, admirer of the cyanide process.

"Then again, as in New Zealand, there are quite possibly a number of ores that can be treated directly by cyanide without the intervention of amalgamating appliances. These are particularly those ores which contain the gold in a fine and rebellious condition, or alloyed with a considerable percentage of silver. Direct treatment by cyanide offers the advantage of low operating costs, and a small initial cost of plant. At the present time, of course, I cannot speak positively of what steps I will recommend. It is only after careful study of the ore, and of the local conditions, that a metallurgist can arrive at safe conclusions. In general I may say, however, that we are now beginning to recognise that no single type of mill is suited to all ores. The treatment must vary with the ore."

"Do you think you will be easily able to convert Australian mining men to your own views?"

"No doubt it will be somewhat difficult. The Australians have been noted for their conservative tendencies, but like all others they are open to conviction. I cannot expect everyone to adopt my own reasoning at once, but I hope to be able to prove by comparative tests that my suggestions have value. They are noted for their hospitality, and doubtless they will at least listen to the stranger among them."

MEETINGS OF MINING COMPANIES.

LEADHILLS SILVER-LEAD MINING AND SMELTING COMPANY, LIMITED.

A small loss recorded, owing to the low price of lead.—Improved prospects for the current year.

THE 35th ordinary meeting of the members of this company was held at the offices, 30, Finsbury-circus, E.C., on Wednesday last, Mr. PETER WATSON, C. C. (Chairman and managing director) presiding.

The SECRETARY (Mr. Felix F. Wilson) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen, I desire to preface my remarks by calling your attention to the position we were in 12 months ago. Then we had made a loss of something like £2200 for the 12 months ending the 30th June, and as I explained to you a year ago—in fact, rather less, inasmuch as we are holding our meeting to-day about a month earlier than we did last year—that was owing to the fearful depreciation in the price of lead. This led us to seek for a reduction in royalties, and an arrangement was entered into by your directors with Lord Hopetoun's representative a short time afterwards for a period of four years. Virtually it amounted to this—that during four years we were to have the royalties taken off provided we did certain work—that is to say, the sinking of two shafts and the driving of certain levels and various crosscuts, and that work has been carried on from that time. Now we come to the 30th June last, when we closed the accounts, which I have now the pleasure of submitting to you for approval. The price of lead oscillated from about £9 2s. 6d. to about £9 5s. for several months; in fact, for nearly the whole of the six months of this year, and our stock was taken at that very low price on the 30th June. Having made these remarks I think it will be well for me to call your attention to the report and accounts. With regard to the accounts, there is really nothing to call your attention to, except that instead of making a loss of £2200, we have made a loss of only about £120, taking the lead at the lowest price which I have named. We have had to pay some slight land damages, and we have spent a considerable amount of money in accordance with the arrangement made with Lord Hopetoun's representative. A considerable amount of work has been done, which has cost about £1140, and that has all been paid for. Instead of carrying it, as some companies do, to capital account, we have carried it to revenue account, and it is wiped off. We adopted that plan almost from the commencement of this company, inasmuch as we have been enabled to so nurse our capital to have kept it in hand, and unless we had done so we should not have been in the good position that we are in at the present time. You see the estimated value of the lead on hand, and the money we have in hand. We have current assets, and our lead stock in round figures about £15,000. That is virtually part and parcel of our capital, and had we not had that to keep our stock of lead we should not have been in such a good position as we are now. We have altogether as good a stock at the present time, and I may tell you that since we took our stock, lead has gone up £1 a ton, so that you can easily see our position is very much better now than it was at the end of June. We have also sunk those shafts in accordance with the arrangement made with the lessor, and in a few weeks we shall have a communication made between Jeffrey's and Wilson's shafts, a distance of about 120 fathoms. In addition to that we are driving a cross cut to get underneath the Raik vein. About half the distance has been driven, and before we are 12 months older I hope we shall have some good results from that vein. I may mention that it was in a large measure on the richness of that vein that we purchased this property about 18 years ago. It was one of the richest veins ever known in Scotland, and we hoped that it would have continued. At that time lead, instead of being only worth £9 a ton, was worth £22 and £23 a ton, and had that rich vein continued, and also that price, we should have paid off a great deal more than the £120,000 of capital in dividends. Unfortunately lead went down until we got to the lowest price this last 12 months—namely, £9 2s. 6d. We are driving to get underneath this vein. Our late manager, Mr. Newbigging, had a very strong opinion that if we could only drive a crosscut and get underneath into more settled ground, we might have a rich vein there again. Whether we will or not time alone will prove; still, we are somewhat sanguine that we shall get some good results by so doing. Then, again, we have to drive about 10 fathoms more in the 100 fathom level south, and to drive a crosscut to intersect Brow vein, I have a very high opinion myself of Brow vein. It is a vein which produces mineral, and the component parts of the vein are very much like our present vein—Brown's. It will take some considerable time to drive to cut this Brow vein, but, at any rate, we know that it was a very rich vein down to a certain depth. It produced a considerable amount of lead, but inasmuch as our Raik vein and Brown's vein were doing so well when lead fell down £2 or £3 a ton, we had to look about and suspend operations for the time being, but we never had any idea that that portion of the mine should be abandoned. When I negotiated for a new lease I took particular care that the Brow vein should be still included in our lease, because sooner or later we must, as we shall do now, drive this cross-cut out at the 100 fathom level to intersect this and other veins in that direction. We think some good results will come from these two crosscuts I have named. There are other lodes in that direction which we shall still continue the crosscut to and see what they will produce. So far as our mining is concerned I am sorry to say that during the last six or seven months, or even longer, our ends have been very poor indeed, but we are not without hope, and I am happy to tell you to-day we have got some good improvement in one of our bottom ends. We have not had the success which we anticipated we should have driving those two levels, because the ore at the bottom of the level above which we had reason to believe would follow down has not done so, but the letter I have received to day states that one of our ends is now producing 30 cwts. to the fathom. We have got another end which also looks very promising, so that, on the whole, we are not without hope, and we have every reason to believe that we shall have some very important discoveries before long. We have pushed our shafts down and driven our levels with the hope of making discoveries at a greater rate than any mine that I know of at the present time, and we shall continue to do so, because it is really the life and soul of mining to sink your shafts and drive your levels with the hope of making discoveries. At our last meeting I called your attention to the Tariff Bill which was then before Congress in America, and I mentioned then that should the Bill pass we had reasonable hope that we should see a better price of lead. The Bill has been before Congress ever since the commencement of this year, and I believe it finally passed the night before last at 12 o'clock, but virtually it passed about 10 or 12 days ago. Well, now the price of lead to-day is about £10 2s. 6d. a ton instead of £9 2s. 6d., and the reduction in the tariff on lead equals about 50 per cent. The import duty into America came to about £9 per ton, and half that has been taken off. It is just possible that the Broken Hill Proprietary Company may send their lead direct into America from Australia, and if they do so it may help us here considerably. My own opinion is that they will do so. It is the New South Wales mines that are doing very serious injury by the imports into this country. They actually quarry it out, and their profit was £397,378 in the last 6 months, but it is mostly from silver, for they are getting something like 250,000 ounces of silver every week. If we could get silver with our lead to any appreciable extent, of course it would help us very materially; but this is one of the very few mines which has been able to surmount all these great difficulties in this country, and to hold up its head as it has done to the present time. We are simply dependent on pure galena, and not on anything we get in the way of silver. The only question is as to the consumption of lead, which is very considerable, but against the large production of the Broken Hill Proprietary Company it must be remembered that nearly all our lead mines in this country are shut up. In Germany Spain, and various other places, a great many mines are also shut up; and although the Broken Hill Proprietary Company may produce a large quantity, yet, on the other hand, there has been a great falling off in the produce of other countries, and, therefore, I hope with a revival of trade in this country and elsewhere we may again see the price of lead another £1 or £2 better before we meet next year. If you can tell me when lead will be up £1 or £2 more, I can tell you when we shall resume the payment of a dividend, but until that happy time comes we must be content to bear the ills we have. I do not think I have anything more to say on the subject, except that it has been a very anxious time for the directors. I told you 12 months ago, that although our loss amounted to £2200, I hoped we should not see such a state of things again. Well, we meet you here to-day, and instead of a loss of £2200, we have a loss of only about £120. If our accounts had been made up two or three months later, we should have shown £1000 to the good, or perhaps a little more. I think we have weathered the storm, and my own impression is that although lead has only gone up £1 a ton, while tin has gone up £5 or £6 a ton, and copper £2, we are on the right track now for a general advance in metals. We only want a revival of trade, and these unfortunate strikes to cease, and miners to see that it is to their interest to pull with their employers through difficult times, and not to be led away by agitators in the way they are. We made a favourable contract 12 months ago for coals, but the contract is just at an end, and instead of getting coal at the pit's mouth comparatively close to us, our manager talks about having to go to the North of England to get a few trucks to keep on our fires. That is a very serious state of affairs, and when I see in the newspapers that during the last eight or nine weeks there has been a loss to Scotland of something like £7,000,000 to £8,000,000, which would have been beneficial to the country, all I can say that it is a monstrous state of things. Whether our laws are defective I do not know, but I think it is high time the Legislature stepped in and did something to prevent these continued strikes and injuries to our country. Our new manager has given great satisfaction so far to the directors, and I hope he will continue to do so. I hope we shall now progress towards a profitable state for you, and that next year when we meet we shall be able to give you something in the shape of a dividend, if not before. I now beg to move that the report and accounts be received and adopted.

Mr. THOMAS GLEN seconded the resolution.

Replying to Mr. WEST,

The CHAIRMAN stated that the item of £138 for income tax was on the average profits of five years. £76 for travelling expenses was, in his opinion, money well spent. Periodically inspectors visited the mine, and it was necessary that they should do so. The reserve of £2500 was in the stock.

Mr. COPPEN expressed the opinion that the reserve was profitably employed in the business.

The resolution was then put and carried unanimously.

Mr. WEST proposed that Mr. Edward Ashmead be re-elected auditor of the company for the ensuing year.

Mr. COPPEN seconded the motion, which was also carried unanimously.

Mr. ASHMEAD, in returning thanks, said he did not know of any accounts better kept than those at Leadhills.

Mr. WEST proposed a vote of thanks to the Chairman, directors, and officials for the very able way in which they had conducted the affairs of the company, and expressed his gratification at seeing Mr. Watson sufficiently recovered in health to preside over the meeting.

The motion was seconded by Mr. COPPEN, and cordially adopted.

The CHAIRMAN acknowledged the compliment, and referred to the excellent staff which the company possessed. He also alluded to the report of the Minera Company (whose meeting was being held at the same hour), and pointed out that the directors of that company stated that:—"As far as lead is concerned, there is no record of its ever having touched so low a price as during the present year."

The proceedings then terminated.

CENTRAL AFRICAN AND ZOUTPANSBERG EXPLORATION COMPANY.

Voluntarily wound up.—Amalgamation with the Oceana.

An extraordinary general meeting of the Central African and Zoutspansberg Exploration Company (Limited) was held on Tuesday at the Cannon-street Hotel, Mr. F. A. GILLAM presiding, for the purpose of submitting the following resolution, "That the company be wound up voluntarily, and that Finlay Alexander Macrae and Thomas Fell Dalglish be and they are hereby appointed liquidators for the purposes of such winding up."

The SECRETARY (Mr. Finlay A. Macrae) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen, there is practically nothing for me to say or do but what is contained in the resolution. You will recollect that our last meeting was held on May 25, when it was resolved to hand over the assets of this company to the Oceana Company. The confirmatory meeting of the Oceana Company to carry that out was not held until June 15, and in the meantime we have occupied ourselves in handing over the extensive assets and executing the necessary deeds to the Oceana Company. This has now been done, and you are called together at the earliest opportunity to allow of the liquidation of the company to be proceeded with as early as possible. From an examination of the books I think the liquidators will be able to carry out the forecast of division of Oceana shares made in the circular addressed to you by the directors, on May 17, viz., 10 Oceana shares for 75 ordinary shares in this company. I beg to propose the resolution which has been read by the secretary.

Mr. F. C. O. STRETTELL seconded the motion.

The CHAIRMAN, in reply to questions as to future prospects, said he was afraid he could not give the meeting any information about the Oceana Company. They would hold a meeting very shortly, when the shareholders would learn the whole position of that company. Everything, he believed, was most favourable. At the last meeting of the Central African Company it was stated that the founders' shares, bing £1 shares, and the ordinary being 5s. shares, as the ordinary shareholders would receive 10 Oceanas for 75 present shares, the founders would get 40 Oceanas for every 75 of their shares.

The motion was unanimously carried.

A SHAREHOLDER referred with regret to the death of the late Captain Lovett Cameron, formerly Chairman of the company, and suggested that if it were possible the liquidators should be authorised to award to the widow, who was in somewhat needy circum-

stancer, 1000 Oceana shares. No resolution was, put but the matter will be further discussed at the confirmatory meeting.

A vote of thanks to the Chairman closed the meeting.

MOSMAN GOLD MINING COMPANY, LIMITED.

Reconstruction agreed to.—Reasons for raising the additional capital.

On Wednesday, the above company held an extraordinary general meeting at Cannon-street Hotel, for the purpose of reconstructing the company, Mr. GEORGE HOPKINS, C.E., presiding.

The SECRETARY (Mr. Thomas Winder) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen, some three or four years ago it seemed evident to everyone connected with the company that reconstruction for the purpose of raising additional capital would be necessary. The directors were very averse to taking such a step at that time—so averse, indeed, that they incurred a debt of about £6000 in view of the mine improving, rather than recommend a reconstruction. During the three or four years the mine has not only paid off that debt of £6000 out of profits, but the company has sunk the Wyndham shaft from the surface down to a depth of 1360 feet. I do not know what the exact cost of that work has been, but you may put it at not less than £8000. We have also equipped that shaft, not with new machinery, but with certain machinery, which we had in our possession, supplemented by some other machinery which we purchased. It was not altogether such as we should have liked to have had, but it was quite sufficient for its purpose, and with it we have sunk the shaft to the depth I have mentioned. During that time also we have paid two small dividends. Some months ago we got into some very poor ground, and at the same time we encountered a good deal of water at the bottom of the shaft—so much that the present pumping apparatus is not sufficient to cope with it without causing a considerable delay. It takes a considerable time over 24 hours to relieve the shaft of water, and that makes the progress very slow and expensive. Mr. Holliman cabled to us at that time that, with the then state of the mine, it would be quite impossible to continue working without further capital. This came upon us rather as a surprise, because with the lapse of three or four years we were in hopes that we had weathered the storm, and that reconstruction would not be necessary. Mr. Holliman suggested that he should come over and consult with the directors, and, as Mr. Mosman was coming over to London at the same time, we thought it would be the better course for him to come over also; so that not only we, but you, could have an opportunity of seeing these gentlemen, and hearing from them direct anything which may occur to you as being desirous of knowing. You will naturally expect to hear from me some reason for the recommendation of the directors that additional capital should be raised. Immediately in front of the Wyndham shaft we have a large block of something like 25 acres or 30 acres virgin ground. That large block of ground has been untouched. We know that the Wyndham reef runs under it, because we are in it on our present workings, where the reef is 4 feet or 5 feet wide on the north side of that important slide or fault, to which I will allude presently, and from which workings we have taken out some very good stone. But, in addition to that, at the No. 3 shaft of the Day Dawn P.C. Company, which is within 27 feet of our boundary, and which is down about the same depth from the surface as our workings, they have a reef which is yielding about 2 ounces of gold to the ton, and there is no doubt that that reef runs under our ground, and joins up with the reef where we are working at present. Further than that, at about the middle of that block of ground the Talisman reef outcrops, and nothing whatever has been done on that reef. A shaft was commenced some years ago, and put down for a few feet only—not down to the reef—and it was discontinued; but that reef runs under about one-half of that block of ground, and the directors think, and Mr. Mosman thinks, that that reef ought to be tried, because there is a very good prospect there of finding payable ground. I spoke of the Wyndham shaft as encountering at its present level a considerable amount of water. There is a well-defined and well-known slide or fault, which runs across the whole of the Wyndham ground, and which our shaft is now approaching at a very acute angle, and it will be some 200 feet or 300 feet before we are through that slide. We know there is gold on the north side of it, the Wyndham shaft being now on the south side, because we have taken out, in places, gold worth 3 ounces to the ton. At the present time at our 13 level, although in a good, defined, well-formed reef 5 feet wide, the stone is of poor quality, but our managers expect—and there is no reason why their expectations should not be correct—that in a short time they will be through this poor reef of ground and into better ground. Therefore, from that point of view, it seems to the directors—and I think it will seem to you—that it is desirable that that work should be continued at that point. The position shortly is this: We have acquired the lease of a large property under which two reefs are known to run; we have sunk a shaft down to 840 feet below the surface, and that, surely, is not the time to abandon a property. On the contrary, I think—and I think you will agree with me—that, instead of abandoning, the right thing to do is to continue working. (Hear, hear.) So far for the Wyndham, Eastward Ho, and Rainbow Block property. Now as regards the North Australian, which lies to the west of our property, and is separated from it by the ground which is the North Australian Block, and does not belong to us; there we have a lease of about 25 acres. The North Australian ground has been worked to a very great extent; in fact, the North Australian reef itself is practically worked out there. But there is a second reef, on which a good deal of work has been done, called the North Australian P.C. A good deal of gold has been taken out, and further work remains to be done on that reef. But the principal point to which I wish to call your attention is the fact that at the extreme west of that ground a third reef, known as the Peabody, crops up at the surface. That has only been in our possession for a short time. Before it came into our possession a small amount of work had been done on it. It was found to be a good reef, yielding stone averaging 2 ounces to the ton, and the reason why the then owners could not reasonably continue working on that ground was that in a very short distance they would be cut off by our property, the North Australian, which formed a block to them, and, obviously, it would not have been advisable for any persons or company to go to a large expense in putting up machinery to work ground, of which they had only a very short piece, before they were stopped by the adjoining company. A different state of things exists now. We have not only got the North Australian ground, but we have also the Peabody, the two forming a part of our present North Australian reef. We propose to put up some machinery on that. We have machinery of our own on the ground sufficient for that purpose, and we shall only be put to the expense of erecting it, and, perhaps, finding some new parts. Mr. Holliman is very sanguine that with a very small outlay that reef may be proved. It has been proved to a depth of about 200 feet, and good stone taken out of it, and the supposition is that it underlies the whole of the North Australian ground of 25 acres, forming a third parallel reef under that ground, which hitherto has been unworked. As regards ways and means, Mr. Holliman estimates that about £2000 will be necessary to do this Peabody work which I have been speaking of in order to prove it. Mr. Holliman tells me that the character of the stone is very similar to that in the North Australian, and that we know is very good stone. To find new pumps for the Eastward Ho, and additional machinery, Mr. Holliman puts down £3000, which makes £5000, and he thinks that for sinking the Wyndham shaft, say, some 300 feet further and for opening up and running additional levels we ought to have something like £4000 in hand. That makes a total of £9000, or, in round figures, £10,000 A shilling a share on our capital will realise about £9250, and, therefore, we thought that if we subscribed 1s. 6d. a share, which would give us between £13,000 and £14,000, it would be ample, and all that we ought to ask you to subscribe. Some of the shareholders with whom I have been in communication have suggested that it would be better for us to make the call 2s. per share: but I do not know whether it matters much. I was anxious not to put it higher than was necessary; but if you, gentlemen, think 2s. better, I believed it could be passed. Now, Mr. Mosman is here, and will be able to speak for himself; but I may tell you that the present moment he holds nearly 40,000 shares in the company, and he not only comes here to support this scheme by saying that he is willing to find his proportion of the money, but he advocates it, and recommends the shareholders to do the same. I think the fact of his doing that is to all of us a great guarantee that it is desirable to do it. (Hear, hear.) I now beg to move the first resolution:—

That it is desirable to reconstruct the company, and, accordingly, that the company be wound up voluntarily, and that Thomas Winder, of Woolpack-buildings, Gracechurch-street, in the City of London, be and he is hereby appointed liquidator for the purposes of such winding up.

Mr. MOSMAN seconded the resolution.

Mr. HARSTON asked whether the directors had come to any decision with regard to reducing their fees. He thought £100 a year for each director would, under the circumstances, be a reasonable payment. He also thought the expenses of reconstruction should be limited.

Mr. FERGUSON thought the only practical way of raising the money they required was by reconstructing the company in the manner proposed by the directors.

Mr. CHATER suggested that the unallotted shares should be offered to the shareholders, that a limit should be put on the expenses of liquidation, and that the directors' fees should be reduced to £500 a year. There was no doubt that the Mosman was a good property, but he could not understand why, after sinking a shaft 1360 feet, and after paying two dividends, the payment of dividends should cease. He also thought that two directors should be elected on the new board to represent the shareholders.

Mr. RIDSDALE also thought that two additional directors should be appointed.

Mr. HOLLIMAN, in reply to questions, stated that the approximate value of the machinery was about £16,000. The mine made about 45,000 gallons daily (24 hours), and they required machinery capable of dealing with this in 16 hours; it was for such machinery he had estimated. He did not anticipate any increase of water on going deeper. After they were clear of the slide they would be able to cut a cistern to hold the water. He did not think the water was really in the ground, but the slide brought it along. The dividends fell off, because they were working through poor ground. His experience went to show that the rich and poor ground alternated, and he believed when they got deeper the stone would improve.

The CHAIRMAN, in reply to SHAREHOLDERS, said as regards the cost of reconstruction, it would, he was informed, come to about £500. With regard to the fees, the directors thought they had met the shareholders by reducing their fees to one-half what they originally were; but they were prepared to reduce them to £500 a year on the understanding that when they paid a dividend of 10 per cent. or upwards they should be increased to £750.

The resolution was declared to have been carried by the requisite majority.

The CHAIRMAN next moved:—

That the said liquidator be and he is hereby authorised to consent to the registration of a new company with the name of "The Mosman Gold Mines (Limited)," or some other similar name, and with a Memorandum and Articles of Association to be prepared with the privity and approval of the directors of this company.

The CHAIRMAN, in reply to Mr. CHATER, said the unallotted shares should be offered to the shareholders.

Mr. SYKES seconded the resolution, which was carried.

The CHAIRMAN then proposed:—

That the draft agreement submitted to this meeting and expressed to be made between the company and its liquidator of the one part, and the Mosman Gold Mines (Limited) of the other part, be and the same is hereby approved, and that the said liquidator be and he is hereby authorised, pursuant to Section 161 of the Companies' Act, 1862, to enter into an agreement with such new company (when incorporated) in the terms of the said draft, and to carry the same into effect with such (if any modifications) as he thinks expedient.

Mr. MOSMAN seconded.

Mr. HOLLIMAN, in reply to a SHAREHOLDER, said the expenses were kept as low as possible. It was purely owing to the character of the ground that they were high. They had to do a lot of tut-work.

The motion was carried by the requisite majority.

Mr. MOSMAN said they had all met there with the desire to reconstruct, and, as the largest shareholder and the original owner of the mines, he desired to say that he had had very good luck with them. He must confess, however, that since the company was started it had had very bad luck. He had stuck to his shares all through, because he thought that any time they might get to rich shoots of gold which would recoup them for their outlay. Such, however, had not been the case. The Mosman Company was not singular in having bad fortune, and there were a good many mines in Charters Towers, which were started in the same way, undergoing the same experiences at the present time. He had given 30s. for shares in Charters Towers, which were not now worth 3d. Most of the machinery at the mine he had purchased himself, and it was working well. Now that they had got into deeper ground in Eastward Ho they required stronger machinery. As far as the prospects of the mine were concerned, he considered that things were as good now as ever they were, and the company might get back from a few acres of ground in a short time all the money they had expended. All mines in Charters Towers were patchy, but the reefs continued. The Peabody underlay the whole of the North Australian Block, and the chances were that they might get some very rich deposits of gold from that. He considered that the Peabody was as good a mine as they had. Taking all things into consideration, he thought it was a very fair mining venture, and he was ready to contribute his proportion to carry out the scheme.

Votes of thanks to the Chairman, Mr. Mosman, and Mr. Holliman ended the meeting.

SOUTH AUSTRALIAN PETROLEUM FIELDS COMPANY.

Favourable reports on the Burma property.—A hard working and energetic manager.

The statutory meeting of this company was held on Tuesday at the offices, 12, Pancras-lane, Queen-street, E.C.—Mr. H. H. THOMPSON, the Chairman, who presided, said it was the first time he had had the pleasure of meeting the shareholders since the reconstruction scheme was brought before them, and which, he was happy to say, had been carried through in a most successful manner. As there were many present, who had not been at the meeting held prior to the reconstruction, he would take the opportunity to go over the old ground again. The directors told them then that their property in Burma had been proved, by actual working, to be of great value; that without any working capital from the company their manager had been able to sink a large number of oil wells, erect more buildings, add to their already extensive plant, pay the salaries and wages of a considerable European and native staff from the means provided by the oil he had obtained from their wells. Much of this expenditure should really have been passed to the capital account, and had the company been in the position to remit to Mr. Crosbie even a small amount of working capital, no doubt before now the directors would have been able to distribute profits in the shape of dividends to the shareholders. The funds of the company had, however, been wholly expended in the attempts to obtain oil from the Australian property, which had now been abandoned, and they had been quite unable to assist the efforts of Mr. Crosbie with the most moderate remittance of working capital. That was, briefly, the position of affairs when they last met, and when it was resolved that the only way to preserve the property for the benefit of the shareholders would be to reconstruct the company, and thereby provide the means to pay off the liabilities, and provide working capital. He was pleased to be able to inform the shareholders that, though so short a period had elapsed since the formation of the new company, the progress and development that had been going on at their property could not otherwise be described than highly satisfactory. In order to give the shareholders an opportunity of fully realising what had been done, he would read extracts from the manager's correspondence.

June 30.—The Government has cut and metalled a new road alongside of our grant on the one edge that would be running south and west side which is a great boon to us in getting wood and using it for drawing our boilers and engine on. Oil at the end of our pipe-line is selling for Rs. 3, and everything is going on prosperously.

July 7.—Since writing to you on Saturday, the 30th, we have struck what appears to be a nice well in our No. 75. We have got 19 maunds out of it to-day—the lightest oil that I have struck yet on the territory. We struck this on the side of the mountain at a very shallow depth of 120 feet. I will wire you from Akyab the first opportunity that I have of going there. I am of opinion that this oil is filtered out of the bottom of the mountain. I will bore on the top of this mountain as soon as I can get to it. I am of opinion that we will strike oil in all our wells that we have now started up to drill.

July 24.—Since my last letter, and since I cabled to you, we have struck more oil in No. 76. You will see it marked on the big map that I have sent you, almost on the extreme south end of our grant here at Minbyn. No. 75, the new well, we have taken 100 maunds out of. I have not heard from the eastern Borongah Island this week yet, as our mails do not come regularly, so I cannot report to you of our success there; but we are in hopes of getting a big well from the Borongah Island. The work is pushing ahead as fast as we can do it owing to the weather. Our No. 77 is down about 227 feet. I hope by next mail to be able to wire you of plenty of oil being struck here. We have started another well (No. 79), and are now boring the surface. Everything going on in good shape, considering the rains. We are selling oil at Rs. 3 a maund at the end of our pipe line, and our health is fairly good.

Telegram received August 20:—Two wells struck. Send £500 to enable us to hold oil."

July 30.—I received yours dated June 29, 1894, and everything all well, and have struck oil in larger quantity in our No. 76. This morning we took out five maunds, and the drilling is still going on. This lies about ½ mile south of where we bored one and got a dry hole with good indications of oil. I got a letter from the Borongah Island, stating the steam boring well is down 300 feet with every prospect of getting oil. There is gas enough flowing out of it to drive all our machinery. Enclosed under separate cover my directors will find a log of all the wells that we have drilled on the Minbyn property, and I will send a log of the Borongah Island boring as soon as I can get it from Mr. Haley. You will see by the big map I send you where all these wells lie on the Minbyn property. Oil is Rs.3 at the end of our pipe line, and can sell more than we produce.

From what they had heard, he thought the shareholders would agree with him that their manager had proved himself to be hard working and energetic, and to all who had had any experience whatever, the value of such a manager could not be overrated. After taking into consideration the favourable nature of Mr. Adams' report, which had been sent out to the shareholders, and the hopeful correspondence continually received from the manager, he thought the shareholders might safely congratulate themselves on having a really valuable property. (Hear hear.)

Mr. ADAMS, in reply to an expression of regret by Dr. HAWKINS, on his retirement from the board, said the only reason for his retirement was a slight difference of opinion with the other directors as to the constitution of the working capital of the company.

The CHAIRMAN added that Mr. Adams had sanctioned everything that had been done by the directors at the various meetings held, with the solitary exception of the last meeting. Mr. Adams was properly anxious that as large a sum of money as possible should be sent to Burma, and that amount was sent out. The only objection which Mr. Adams had was that the remittance did not exceed £500. Since sending out the first £500 to Burma another £750 had been sent; so that Mr. Crosbie, their manager there, had received in all, up to the present time, £1250 for working expenses.

The meeting ended with a vote of thanks to the Chairman.

NEW COLORADO SILVER MINING COMPANY, LTD.

A troublesome condition of affairs.

The first annual general meeting of the New Colorado Silver Mining Company (Limited) was held at the Cannon-street Hotel, on Thursday, Mr. JOHN PETERS, Chairman of the board of directors, presiding.

In moving the adoption of the annual report, with accounts, the CHAIRMAN said the company was not, or had not been, in a very promising condition. The present position was much better than it was six months ago. Then they were really in great danger. The manager positively refused to stay any longer at the mine, and, without waiting for instructions from the directors, closed it. However, he perhaps did the best thing that could have been done under the circumstances, because if he had remained the company would have shared the effects of some of the riots, lawlessness being at the time absolutely rampant. The railways would not carry the ore, the smelters would not buy it, and the company had no means of disposing of what ores they could get. This state of things continued for over two months. Unfortunately, it followed on the heavy expenditure the company had just incurred in sinking their new shaft. They had received information which led them to think that they were on the point of reaching a valuable ore deposit; that information came on the manager's authority, and it was to be hoped that they would yet, under more favourable conditions, get to workings which would repay them for their trouble. They had meanwhile felt it necessary to confine their operations to the earlier workings, the result being that they had been able to get on month after month with a small profit, had settled some of the old disputes, and had been successful in freeing themselves from debt on that side, leaving a small balance in their favour. The main difficulty at present was as to how fresh operations could be carried on while but a small profit was being made. On this side it had been necessary to bring the expenditure to a close as soon as possible, without unnecessarily affecting the company's interests. The directors' fees had been stopped for some time. It was a mistake to say that they drew £500. They were entitled to do so, but the amount actually drawn was only £220 to £230, as to which they had no choice. Unless the position of the mine improved, he did not think that the directors' fees would be drawn until they could present a more favourable state of affairs to the shareholders. The business before them had been very troublesome and had necessitated a great deal of care and economy. They had, however, a very efficient manager, who had, with the aid of the previous manager, a highly competent man, undertaken the business, because he had great confidence in the property after surveying it, whilst the salary he drew was absolutely insignificant. He (the Chairman) felt bound to share in the confidence entertained by the manager and by others who were in a position to form a judgment on the subject, and he trusted that next time the directors would be able to present a more favourable report. Their great difficulty so far had been occasioned by the low price of silver, which had begun to show signs of improvement.

Mr. SMYTHE seconded the resolution.

Lieut.-General the Hon. W. FIELDING asked if the cash in London and Colorado, amounting to £12 9s., was all the money that was left out of the £6812 produced by the call of 2s. 6d. per share. If so, he thought they would soon come to the end of their tether, because there was only £6 per share remaining uncalled, which would only produce about £1700.

The CHAIRMAN, in reply, said General Fielding was quite correct in his figures, but the company was now earning a little over the actual expenditure, and therefore they were making a slight profit month by month. According to the last letter received from the mine they had a balance exceeding $1000, so that the company's position was improving.

The resolution was unanimously carried.

The retiring director, Mr. C. J. Crickmer, and the auditors, Messrs. Arthur Goddard and Co., were re-elected.

A vote of thanks to the Chairman ended the meeting.

NEW PRIMROSE GOLD MINING COMPANY.

"May" acquisition confirmed.

(From the *Standard and Diggers' News.*)

A special general meeting of shareholders in this company was held on Tuesday, July 31, in the Board Room, Barnato Buildings, South Africa. The business of the meeting was to confirm or otherwise a provisional agreement entered into between the directors of the New Primrose and May Deep Level Gold Mining Companies, by virtue of which the Primrose acquires all the property and assets of the May Deep for 18,750 shares in the New Primrose Company, this company undertaking to discharge the May Deep's liabilities to the amount of £32,000. The agreement further provided for the creation of 50,000 New Primrose shares, of which number 30,000 were to be offered to the shareholders *pro rata* to their holdings at £4 per share, at which price they are guaranteed. *Inter alia* it is provided that May Deep shareholders should have the option, if preferred, of being paid out at the rate of £4 for Primrose shares acquired under this agreement,—Mr. JOHN STROYAN presided.

The SECRETARY (Mr. D. Henderson) having read the notice convening the meeting,

The CHAIRMAN said the advertisement just read by the secretary gave a résume of the agreement which had lain upon the table for more than a month. He took it they would take it as read. Continuing, the Chairman said there was nothing for him to say that day but move the adoption of certain resolutions which would be read later on. With regard to the acquiring of the May Deep property, he could assure those present it had been done only after the most careful consideration of the board. The directors, as soon as it was known that the May Deep was in monetary difficulties, had at once set about endeavouring to obtain the property, and he was glad to tell them that that day the shareholders of the May Deep Company had agreed to confirm the provisional agreement entered into, and those present were now asked to do the same on the part of the New Primrose Company. With regard to the May Deep Level, the name deep level as applied to this company was altogether a misnomer. As those present knew, that property was only separated from the outcrop of the Main Reef by less than one claim, and therefore it could not be properly called a deep level company at all; it was in fact an outcrop company. Far be it from him to disparage the value of deep levels, as he saw in them enormous wealth and prosperity for the Rand in the future. But they could only come second, and a good way behind, properties like the May Deep, which was not a deep level at all. In the first place, in the place of deep levels properly so-called, the owners had enormous depths to sink before arriving at their available reef. That took enormous sums of money, and a very great deal of time, which was also a very great consideration to them all as shareholders in the future. With regard to the May Deep Level, not only had they practically an outcrop company, but the heavy work and the expenditure necessary had already been done, and the reef already been reached, not only in one but in two main shafts. One main shaft which was very well equipped indeed had already been sunk to a depth of about 600 feet, and a very considerable quantity of ore was in the stopes above it. The May Deep property consisted of 23 claims; it had a 30 stamp battery fully equipped, and Frue vanners. They must note that the stamps were of the heavy type and not of the ordinary light type. It had also got a very fine rock drill plant of 20 drill capacity. With regard to the position of the May Deep Company, its situation made it of very great value indeed to the Primrose Company—very considerably more value because of its position to the Primrose than any other company on the Fields. All they had to do was to continue working with the magnificent rock drilling plant now ready to work—in fact, it had already worked—and drive the May level towards the Primrose, while from the Primrose they drove to meet the May Deep drives, and then it was only a matter of months when the two companies would be connected and drawing up May Deep Level rock through the eastern shaft of the Primrose Company. Under all the circumstances, he considered the May Deep a highly desirable acquisition on the part of their board, and he might tell them now that the May Deep Level shareholders had finally accepted the agreement, and their minds were considerably more at rest than they were a couple of days ago. (Hear, bear.) The general meeting of the Primrose Company would be held on August 28, when he hoped to have the pleasure of giving them a full report on the condition and prospects of the company, which he might tell them were very good indeed. He begged to propose the resolutions, which he asked the Secretary to read, confirming the provisional agreement, and empowering the directors to provide for the necessary guarantee.

Mr. DORMER seconded the resolution, and it was unanimously agreed to.

The CHAIRMAN, in conclusion, stated that the distribution of the 30,000 shares would amount to 12 in 100, which was the *pro rata* rate shareholders were entitled to apply for.

This ended the proceedings.

MAY DEEP LEVEL GOLD MINING COMPANY.

Confirmation of resolutions for winding up.

(From the *Standard and Diggers' News.*)

A special general meeting of the shareholders of the May Deep Level Gold Mining Company was held in the Board Room, Bettelheim Buildings, South Africa, on Tuesday, July 31, to confirm the resolutions passed at the extraordinary general meeting held on May 16, authorising the sale of the assets to the New Primrose Gold Mining Company.—Mr. J. DIXON presided.

The CHAIRMAN, in opening the proceedings, stated that the shares represented by those present and by proxy amounted to 103,514, and the meeting was properly constituted. Proceeding, he said that the provisional agreement with the New Primrose Gold Mining Company had been lying in the office, and he hoped they had made themselves acquainted with its terms. He had now to move the resolution confirming the action they took at the last extraordinary meeting, and he did not think that in doing so it was necessary for him to make any comments. The resolution ran:—

"That the resolution of the extraordinary general meeting of the shareholders of this company, passed at Johannesburg on July 16, 1894, approving and confirming the provisional agreement made by the directors of this company with the directors of the New Primrose Gold Mining Company (Limited), at Johannesburg, on June 22, 1894, be and the same is hereby confirmed."

Mr. S. B. JOEL seconded the resolution, which was then put to the meeting, and carried unanimously.

The CHAIRMAN said the next resolution was with regard to the dissolution of the company, which would follow as a natural consequence now that the property was sold. Under their Articles of Association it was necessary for three-fourths of the shareholders to be present or be represented by proxy to carry a liquidation resolution, and three-fourths meant 112,875 shares. There were only 103,514 represented, and, therefore, they could not resolve to liquidate at that meeting. But they had an alternative course, which would be put before them in the form of a resolution. It was unfortunate, perhaps, that they had not the required number of shareholders represented, as the alternative course they would have to adopt was to apply to the High Court asking leave to place the company in liquidation. He thought the two matters had to some extent prevented the representation of the requisite number of shares. He found by his last letters from London that there had been a misunderstanding there with regard to the offer, which, as had been previously mentioned, was made by another company. That offer was not satisfactory to the directors as it proposed that the property should be sold under a guarantee to give the purchase price after the expiration of 12 months. The shareholders at home understood that they had the guarantee given to them to exchange May Deep shares for Rose Deep shares or cash within 12 months, therefore they could not understand, when the directors cabled back from here that the offer was not sufficiently good to accept, how it was that one offer was not as good as the other which they recommended and were about to place before shareholders. The other point was that shareholders at home—or some of them—complained that they had not had sufficient time given in which to register their shares, and that the directors were rushing the thing through. There was no case of rushing at all. They consulted the large shareholders at home on the matter, and had their consent, before the provisional agreement was entered into. The directors considered it was no use prolonging the agony, as the up-keep of the company was something like £500 or £600 per month. The directors had received a cable from the representative of the shareholders in London stating that they could accept the offer if they could not do better. Thereupon the meeting was called, and London shareholders given a week's time in which to register their shares. The representative of the London shareholders—elected as such by them—sent him (the Chairman) by last mail proxies for over 40,000 shares, and stated that he had control of over 20,000 more, but sufficient time was not given in which to register. These two points were, in his opinion, the reason why a sufficient number of shares was not represented to dissolve the company without applying to the Court.

Mr. GARDNER then moved the second resolution, which was as follows:—

"That the directors do forthwith apply to the Hon. the High Court of the South African Republic for leave to place the company under the provisions of Law 8 of 1891, and for the appointment of Messrs. John Dixon and Gustav Imroth as liquidators, with full power to carry out and perform all the conditions of the agreement made between this company and the New Primrose Gold Mining Company (Limited) on the 22nd June, 1894; to distribute the purchase consideration to be received thereunder among the shareholders of this company, and to finally liquidate and wind up the affairs of the company."

Mr. S. B. JOEL seconded, and the resolution was agreed to without dissent.

Mr. JOEL moved:—

"That the balance of cash left in the hands of the liquidators (if any, after the liquidation has been completed) be paid them as and for remuneration."

Mr. FRIEDLANDER seconded, and the motion was unanimously accepted.

The CHAIRMAN stated that the next resolution was recommended by the solicitors of both companies, so that there would be no misunderstanding as to whom the May Deep shareholders should apply for their shares. The resolution ran:—

"That all shareholders shall apply for their shares in the New Primrose Gold Mining Company (Limited), or for the equivalent in cash only through the directors or liquidators of this company as the case may be."

Mr. G. IMROTH seconded, and the resolution was carried.

In reply to a question, the CHAIRMAN explained that three days notice to the New Primrose Company was necessary for the issue of batches of the new scrip to the May Deep shareholders. Further, he pointed out that the question of dissolution did not affect the sale of the property which had now been ratified. When they gave transfer to the New Primrose, that company would have to pay them the purchase price. As far as liquidation was concerned, the disposal of the property would not be affected if liquidation did not take place during the present year.

That concluded the business, and the meeting then terminated.

MINING IN CORNWALL AND DEVON:

NOTES ON WESTERN MINING, EDITORIAL AND OTHERWISE.

(BY OUR SPECIAL CORRESPONDENT.)

THE better price of tin has had the effect of increasing the demand for Cornish mine shares. Orders are fairly plentiful, but although day after day higher prices are offered, shares are exceedingly difficult to obtain. There is now greater reliance in the immediate future of tin, and as mines are, as a whole, looking remarkably well, it is confidently expected that within a few months the depression which has hung over the industry for so long will almost totally disappear. A healthy tone pervades the share market, and prices are steady at their advances.

THE pumping at Dolcoath is showing a better state of things than was looked for by a large section of the mining community. The 412 has now been forked, and it is found in excellent condition, considering that it has been flooded for several weeks. There was, as we previously noted, a run into the 400, and that, no doubt, will cause some little inconvenience in the 412, but beyond that there is likely to be nothing to prevent the level being worked in the ordinary way at once. The timbering in the 412 is very heavy, but within the past 12 months or so it has received unusual attention, and that accounts for the level being found in good order. It is calculated that within a week Dolcoath will be forked to the bottom, and if that be so, and tin does not cease to increase in value, the balance-sheet at the next Dolcoath meeting will be much more welcomed by the shareholders than a few weeks since they expected it would be.

MINING men in all directions are expressing regret that Wheal Grenville and South Condurrow have made such a prolonged and fierce fight in the Stannaries Court. The claim and the counter claim have occupied the Court 13 days, and during that time there have been scores of unpleasant passages between the opposing parties. It has been absolutely necessary to assail men's professional reputations in conducting the cases, and it is well known that there is nothing upon which Cornish mining men are so sensitive as upon their capabilities to do well all that pertains to their mining work.

WHEAL GRENVILLE and West Frances are disputing the boundary between the two mines. The amount and value of the ground concerned is far greater than that over which Wheal Grenville and South Condurrow have shown a very lavish expenditure of time and money. Probably, however, this case will not come into the Courts, as the surveyors appear to have agreed. The object lesson given in the Stannaries Court during the past fortnight should cause mines to hesitate before flying into law, for mines in Cornwall have enough, and more than enough, ways for spending money without embarking upon contentions before the Vice-Warden.

THE Mining Association and Institute of Cornwall intend visiting the St. Austell china clay district this year. They propose going to St. Austell by train, and to proceed from thence to the works of the West of England China Stone and Clay Company, which Mr. T. E. Stocker has kindly given them permission to inspect. Dinner will be served at the White Hart Hotel, St. Austell, at three o'clock. The trip should be a decided success, as apart from the pecular interest attaching to a district so rich in china clay, the beauty of the surrounding country is charming.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

MR. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of August 30 (4 o'clock) as follows:—We have not had much animation in our market this week, and there is not much doing to-day but prices are firm. Following are quotations:—Blue Hills, ⅜ to ⅝; Carn Brea, 8 to 8½; Cook's Kitchen, ⅞ to ⅞; Dolcoath, 69 to 71; East Pool, 9 to 9½; Killifreth, 2⅝ to 3; Polberro, 1⅝ to 1½; South Condurrow, ½ to ¾; South Crofty, 1⅝ to 1⅞; South Wheal Frances, ⅜ to ⅝; Tincroft, 12½ to 13; West Frances, 1⅜ to 2; West Kitty, 6¾ to 7¼; Wheal Agar, 10 to 2; Wheal Basset, 1 to 1½; Wheal Grenville, 18 to 19; Wheal Kitty (St. Agnes), ⅜ to ⅝.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (August 30) as follows:—The mining market presents a firm appearance on the reaction of tin and satisfactory result of Tuesday's sale; with an advance of £2 on the standard, prices are much the same, business to-day being mostly confined to the settlement. Closing prices:—Blue Hills, 10s. to 11s. 6d.; Botallack, 1½ to 1⅝; Carn Brea, 8½ to 8⅝; Cook's Kitchen, ⅞ to 1; Devon Consols, 1⅛ to 1¼; Dolcoath, 69½ to 70; East Pool, 8⅞ to 9; Killifreth, 2⅞ to 3; Levant, 6⅞ to 7; Phœnix United, ⅜ to ½; Polberro, 1½ to 1⅝; South Crofty, 1⅝ to 1⅞; South Frances, ⅜ to ⅝; Tincroft, 12 to 12½; West Frances, 2⅛ to 2⅜; West Kitty, 6¾ to 7; Wheal Agar, 2⅞ to 3; Wheal Basset, 1⅛ to 1½; Wheal Grenville, 18½ to 18¾; Wheal Kitty, 15s. to 17s. 6d.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers, and Mining Share Dealers, Redruth, write under date of Thursday, August 30:—The Cornish Share Market after the recent spurt has had a much quieter week, the upward tendency having been checked somewhat by the relapse in tin. The metal, however, shows a recovery at the close, and the tone of shares generally is firmer, with a fair business in Carn Breas, Dolcoaths, East Pools, Killifreths, Tincrofts, and West Kittys, the two latter being especially in demand. Quotations herewith (four o'clock):—Blue Hills, ½ to ⅝; Carn Brea, 8 to 8½; Cook's Kitchen, ⅞ to ⅞; Dolcoath, 70 to 71; East Pool, 8⅞ to 9⅛; Killifreth, 2⅞ to 3; Polberro, 1⅝ to 1⅞; South Condurrow, ½ to ⅝; South Crofty, 1⅝ to 1⅞; South Frances, ⅜ to ⅝; Tincroft, 12½ to 12⅝; West Frances, 1⅜ to 2⅛; West Kitty, 6¾ to 7; Wheal Agar, 2⅞ to 3; Wheal Basset, 1 to 1½; Wheal Grenville, 18 to 19; Wheal Kitty, ⅝ to ¾. Tin, £71⅛.

MANCHESTER.

Messrs. JOSEPH R. and W. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write August 30, 1894 (noon):—Although at time of writing some prices are a little below the best, this obtaining more particularly in Americans. The railway markets exhibit a record for the week of advances all but unbroken. Home rails and Americans are well to the fore with advances, but the sections showing most noticeable gains are Grand Trunk of Canada issues and Mexicans. The exceptions to the general rule are few and small, so few and so small indeed that they would under ordinary circumstances be unworthy of notice. In home rails we take the exceptions first, viz., Great Eastern, which are ½, and Midland ⅜ down. Higher, Berwicks 1⅜, Dover A 1⅛, North British 1⅛, Caledonian undivided 1, ditto deferred ½ to ⅝, Lancashire and Yorkshire ⅞ to 1⅛, Great Northern A ½ to 1, Metropolitan District ¾, and several others improved in small fractions. Canadians Pacifics only about 8⅛ up, but Grand Trunk issues have been very strong with following results. Higher, Guaranteed 4, first preference 3⅝, second preference 2⅝, third preference 1¼, and Ordinary 7-16 to 6⅛. Mexicans have moved sharply up, the Ordinary being 2⅝, Second Preference 2¼ to 3 and First Preference 5½ higher on the week. Americans showed strength, especially in advance of the settlement, which is a change from normal conditions. Some fluctuations have occurred (and it is worthy of note that now, these are not always reflection of movements from the other side), but better prices are universal, with the single exception of Atchisons, the Ordinary and Bonds of which mark 8¼ and 8½ down respectively. The advances only reach (on balance) 31 at the most this being on New York Centrals and Norfolks Preferences, but in others some of the fractions come near the dollar, the bulk, however, being smaller. Consols mark another gain in value, the rise on the week being ⅛ to ⅜. In Colonial Government Bonds, &c., the march is still upwards without any changes of a contrary kind. —Higher: New South Wales Inscribed and Consolidated 1 each and Canada Registered South Australian Registered and Victory Railway Loan Inscribed ⅛ each. Home Corporation stocks are again with changes only on the upward side. Douglas Three and a Half per Cent. is ⅜ to 1½; Bury Three and a Half per Cent., 1; Wigan Three per Cent., ⅛; and Manchester Four per Cent. ⅛ higher. In Foreigners, Mexican Six per Cent. have lost 1 to 1½ from their recent rise, and Portuguese are ⅜ lower, but these are the only declines against the following advances, viz., Brazilian Four per Cent., 2½; ditto Four and a Half per Cent., 1; Argentine Six per Cent., 1⅜ to 2½; ditto Five per Cent., 1½; Italian Rentes, 1; Spanish Four per Cent., 1; Uruguay Three and a Half per Cent., ⅛; and Turkish (Group 4), ⅛. What with the activity in Railway markets, and the occurrence of the fortnightly settlement, the volume of business from the Miscellaneous markets is small, but paucity of business; nevertheless, the course of prices is distinctly on the side favourable to holders.

BANKS with but a desultory record of transactions (Districts and Salfords furnishing nearly the whole of the business reported) prices are not very much altered, and the balance of alteration is favourable.—Higher: Preston Bank 2, Imperial of Persia ⅛, Imperial Ottoman ⅛, and Mercantile of Lancashire 1-16 to ⅛.—Lower: Manchester and County ⅛, Union of Manchester ⅛ to ⅛.

INSURANCE still quiet, and current quotations irregular in their changes. The majority is still, however, on holders' side.—Higher: Ocean Marine ⅛, Manchester Fire 1-16 to 3-16, Palatine 1-16 to ⅛, Reliance Marine 1-16, Union Marine 1-16, and Equitable Fire 6d. to 2s.—Lower: Royal ⅜, London and Lancashire 5-16, Liverpool and London and Globe ⅛, and British and Foreign Marine 1-16.

COAL, IRON, &C.—Whilst very little fresh business has been in progress, prices are good, advances being pretty numerous, though not specially noteworthy in amount, and declines nil.

MINES.—Tintos again furnish about all the business marked here, and the dealings in them are not numerous for a week. The only alterations in values to notice are De Beers ⅛, Tintos ⅜, and Consolidated Gold Fields 1-16, all higher.

COTTON SPINNING, &C.—No market this week, consequently nothing to report therein.

TELEGRAPHS AND TELEPHONES.—No business here, except in National Telephone Ordinary, and that only small. The only variation to record is rise of ⅛ in Western and Brazilian Deferred.

BREWERIES.—Guinness', with rise of 6, and Allsopps 8 higher, are the only changes worth naming, prices in others remaining about unaltered, but fairly firm all along the line.

MISCELLANEOUS.—Just a moderate business done in Ship Canal Ordinary at some decline in prices. They (the Ordinary) are ⅛ down on the week, but the Preference issue is unchanged nominally. Chartered South Africas are 2s. to 2s. 6d., Bovril 5-16 to 7-16, Bell's Asbestos ⅛, Rylands and Sons 1, Spiers and Pond ⅛, and Northern Assets 1s. better. United Alkali Ordinary are ⅛, Brunner, Monds ⅛, and Kellner, Partingtons 1-16 lower.

LATER (4 P.M.).—Home rails but very little doing but early figures are mostly maintained, and the tone is fairly firm. No change to report for the day in Mexican or Grand Trunk issues. Americans opened lower, but there being no pressure of sales, figures are pretty well held, the few changes being only to the extent of about 8⅛ where moved at all. Allsopps have had another rise to-day, presumably on squeezing of "bears." Ship Canals quiet, but prices unaltered since morning.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (August 30), writes:—During the past week the markets have continued active, partly due to improving weather, encouraging trade reports, and improving tendency in the metal markets. The fortnightly settlement has been satisfactorily complete, and the rates of continuation to the new account, September 13, have been light.

In shares of coal, iron, and steel companies prices are generally better. The report of the Steel Company of Scotland for last year, shows a profit of £5338 on manufacturing account, but after allowing for rates and taxes, together with debenture and other interests, there is a loss of £16,894. Stockton Malleable Iron and Teeside Iron (preference) shares both offered. Bolckow Vaughan are at 11¾. Ebbw Vale 8¾. Marbella 56s. 6d., Niddrie 40s., Rhymney 31s., Steel Company of Scotland 52s. 6d., and Wilsons and Clyde 10¾.

In shares of copper concerns prices are a little easier, although the market for the metal has improved. Arizona are at 9s. 3d., Altamira 68s. 6d., Rio Tinto 15, and Tharsis 94s 6d.

In shares of home mines there has been more business doing. Carn Brea are at 8, Great Laxey 48s. 9d., and Polberro 26s. 3d.

In shares of gold and silver mines a fair amount of business has been done. Montana have improved from 13s. 7½d. to 14s. 3d. African Gold Recovery have been selling from 26s. 3d. to 28s., and Cassel from 14s. to 14s. 6d. It is expected the South African Patent Laws will be amended so as to protect these and other companies' inventions. The dividends announced this week include—Broken Hill 1s., payable September 19; Tolima A 10s., payable September 21; and Glencairn 5 per cent. interim. Indian mining shares are better, especially Nundydroog and Mysore on favourable mining reports. Victoria and Altamira First Preference shares offered.; American Belle are at 2s. 3d.; Australasian, 1s. 9d.; Balaghat, 7s 9d. British South African, 36s. 6d.; British North Borneo, 80s.; Blue Spur, 2s.; Bechuanaland, 27s.; Caratal, 9d.; Day Dawn P.C., 3s. 9d.; Gold Fields of Mysore, 22s. to 23s.; Golden Gate (California), 4s. 6d.; Golconda, 18s. 9d.; Lisbon Berlyn, 2s. 6d.; Mallina, 12s. 6d.; Nouveau Monde, 3d.; New Virginia (Transvaal), 4s.; True Blue Block, 2s. 9d.; and Van Ryn, 30s.

In shares of miscellaneous companies there has not been much business doing. In oil companies Pumpherston are at 5¾; others neglected. The report of the Lawes' Chemical Company recommends a dividend of 7 per cent. on the Preference shares, and 6 per cent. on the Ordinary shares, besides writing off a considerable amount for depreciation and various reserve funds. Nobel's Explosives have improved to 14¼; Roburite Explosives, 25s. to 30s.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69 Hanover-street, Edinburgh, report as follows under date of August 30: The home railway stocks have remained firm, Great North of Scotland, which has declined from 95 to 92¾, being an exception. Caledonian Deferred has risen from 44¼ to 44 15-16, North British from 38¾ to 39¼, South-Eastern from 84¼ to 86½. Business in Debenture guaranteed and preference stocks has been limited. The debenture and preference stocks of the Grand Trunk Railway of Canada have had a substantial rise. Bank shares little changed; Royal has risen from 232½ to 234½, Bank of Scotland from 342 to 343, Caledonian from 85s. 6d. to 90s. In Insurance shares Caledonian have risen from 28¾ to 30, Alliance from 10 to 10½, Northern from 65⅝ to 65½, Scottish Union and National A 85s. to 85s. 6d., National Guarantee from 68s. to 70s. British South Africa shares have advanced from 33s. 9d. to 36s. 9d. Coal shares better. Cowdenbeath have risen from 14 1-16 to 14⅜, Fife Coal from 29⅜ to 29¾, Wilson's and Clyde from 10 to 11. Rio Tinto shares have risen from 14 11-16 to 15. Edinburgh United Breweries are 1s. 6d. higher at 67s. 6d. New Zealand and Australian Land Ordinary has risen from 88 to 90. Scottish American Mortgage shares have improved from 55s. to 58s. 6d.

MINING IN BRITISH GUIANA.

EXTRACTS FROM THE REPORT OF THE COUNCIL OF THE INSTITUTE OF MINES AND FORESTS FOR 1893-4.

PRODUCTION OF GOLD.

During the year June 30th, 1893, to June 30th, 1894, the yield of gold has been 137,822 ounces as against 138,279 ounces for the corresponding period 1892-3. The small decrease of 457 ounces is confined to the north-west district, which, taking the Barima and Barama together, shows a falling off of 1487 ounces. The rivers of the Essequebo basin, on the other hand, have, with the exception of the Mazaruni, showed a marked improvement.

	1892-3. Ounces.	1893-4. Ounces.
Essequebo	43,454	44,006
Cuyuni	24,215	26,492
Puruni	2,226	2,861
Potaro	25,157	25,592

This small total decrease of production throughout the colony is certainly not due to exhaustion as is shown by the steady improvement of the Potaro, Essequebo and Cuyuni districts, but is probably the result of the somewhat large investments made in quartz mining companies in 1893.

Of the total number of labourers employed 1109 have been engaged in the development of the quartz reefs. That the north west district has retrograded is not surprising, as it is in that part of the colony that the greatest attention has been turned to mining proper, and no less than seven companies have been engaged in development work which, though promising a rich harvest in the future, cannot be said to increase the colony's production in the present. Again, although there are one or two fairly large and well managed placer mining companies working in the north-west district, the majority of the men engaged there in placer mining are working on small ventures, conducted to a large extent by amateurs in gold mining.

Districts.	1892-3. Oz.	1893-4. Oz.
Barima	28,656	26,675
Barama	4,847	5,339
Cuyuni	24,215	26,492
Croete Creek	216	120
Mazaruni	9,380	6,720
Puruni...	2,266	2,861
Essequebo	43,454	44,006
Potaro...	25,157	25,592
Demerara River ...	85	12

The following statement shows the production of gold from 1884 to 1894:—

1884	250 ozs.	1889-90	32,332 ozs.
1885	939 „	1890-91	66,864 „
1886	6,518 „	1891-92	110,555 „
1887	10,986 „	1892-93	134,124 „
1888-9	20,216 „	1893-94	138,527 „
		Total.....	521,261 ozs,
		Value.....	$9,111,067.

Registration of Labourers.

During the financial year, June 30, 1893, to June 30 1894, the number of men registered by the Institute was 13,061 by 179 companies, of whom 1109 were registered for mining, 582 for the timber bush and the remainder for placer working. The Essequebo district took 5667 men, the Barima 3316, the Cuyuni 1696, the Mazaruni 907, the Demerara River 686, the Barama 508, and the Puruni, 281. The average number of men registered for each company throughout the year was 72·9 or 24·3 working at one time. The number of labourers to whom licenses were issued by the Department of Mines from June 30, 1893, to June 30, 1894, was 20,743. During the financial years 1891-92, 92-3, 93-4, the following numbers of licenses were issued—

1891-2	22,298
1892-3	22,957
1893-4	19,471

If these figures can safely be taken as indicative of the proportional number of men at work in the bush during the years in question, we have the following results: in 1891-2 each labourer produced 4·09 ounces of gold; in 1892-3, 5·09 ounces; 1893-4, 7·00 ounces.

Number of men registered for the different gold bearing districts at the Institute of Mines and Forests, from 1st July, 1893, to 30th June, 1894:—

Date.	Essequebo.	Cuyuni.	Mazaruni.	Puruni.	Dem. River.	Barima.	Barama.	Total.
1893.								
July ...	659	181	64	40	42	309	9	1304
August	912	223	75	25	12	688	93	2038
September...	440	126	88	47	58	151	2	912
October	297	72	74	12	62	128	—	645
November...	175	65	49	21	73	148	10	541
December...	53	58	25	23	47	128	—	334
1894.								
January	1116	440	164	70	119	689	149	2747
February ...	277	107	60	4	42	210	68	768
March	487	119	57	—	36	139	17	855
April	394	82	56	12	60	165	12	781
May	473	131	103	17	58	356	92	1230
June	384	92	82	10	77	205	56	906
Total...	5667	1696	907	281	686	3316	508	13061

Percentage of Absconders.

It will be seen from the annexed statistics that the percentage of absconders for the year amounts to 3·3 per cent. This is an improvement on last year when the percentage was 4. In 1890-1, it was 7·83, and in 1891-2, it was 6·9 The worst month during the past year was November, when the percentage rose to 7·7; but this fell to 1·93 in February, and, during the last six months, the average has been 2·19 per cent. This improvement is to be attributed to the following reasons:—

(1.) A rigid adherence to the rule never to register a man who has been convicted of breach of contract either by the Institute or by any outside party.
(2.) The great value of the photographs supplied through H.M. Inspector of Prisons, by permission of the Governor.
(3.) The establishment of a more vigorous system of personal identification of prisoners.
(4.) The medical examination inaugurated at the end of 1893.
(5.) The greater caution exercised in the selection of labourers.

There has been a decrease of 385 in the number of warrants taken by the Institute during the last 12 months, as against 1892-3. The total number of convictions obtained by the Institute during the year have been 280, thus bringing up the total number of convictions obtained in Georgetown since its foundation to 1625. All these men are rigidly excluded from further registration by us, and their field of exploitation is limited to those who do not make use of the Institute's registration. The value of these results is great. By a gradual process of elimination the majority of idle, dishonest, or disorderly labourers has been weeded out, and putting the money lost in advances out of the question, this class of labourers has always been a source of annoyance and trouble.

Number of warrants taken and executed for the Institute of Mines and Forests from 1st July, 1893, to 30th June, 1894:—

	Taken.	Executed.	Unexecuted.	Paid back.
1893				
July	97	43	54	1
August	127	51	76	5
September ...	107	23	84	8
October	64	12	52	7
November ...	78	20	58	5
December ...	24	6	18	4
1894				
January	72	30	42	9
February ...	64	35	29	3
March	36	6	30	2
April	83	33	50	3
May	34	11	23	—
June	53	10	43	8
	839	280	559	55

No. of warrants taken by outsiders during the same period 1283
No. of convictions obtained on outside warrants for the same period..... 163
Percentage of outside convictions ..... 12·7 per cent.
Percentage of convictions by Institute ..... 33·3 „

Immigration.

Assisted by a vote of the combined court, the Institute inaugurated in November, 1893, some experiments in immigration from the islands. Two agents were appointed, Messrs. Brewster and Gaskin, and an arrangement was entered into with the Hon. E. T. Grannum, by which he was to excercise a superintendence over the class of men despatched.

Of the immigrants sent over by Mr. Brewster, 89 in number, 82 are still working in the gold fields. Of the remainder, four broke down in health, and in order to save the colony expense, the Institute sent them back to Barbados, two deserted, and one is reported sick at the present time. Considering that these men were totally unacclimatised, the experiment was highly successful. The reverse was the case with the labourers forwarded by the other agent. Out of 127 who arrived in the colony under contract, there are only 69 now working. Of the remainder, no less than 29 had to be sent back to Barbados after careful medical examination, and at their own request, as physically unfit, three died in the bush, and 26 deserted. It is only fair to Mr. Grannum to say that he formally complained that many of these men were despatched without being submitted to him for approval. From these experiments, it may be deduced:

1. That the islands will afford an excellent recruiting ground for labourers.
2. That St. Lucia and Grenada afford the most suitable class of labourers.
3. That the Barbadians make fair gold labourers when carefully and conscientiously recruited from the country districts; but that the class of men picked up about Bridgetown is absolutely worthless for our purpose.

THE Agent-General for South Australia has received the following telegram from his Government:—"Splendid rains have fallen throughout the colony, and the harvest prospects are now good. There is also a considerable revival in gold mining prospects."

IT is rumoured at Cape Town that a reef of gold has been discovered at Wellington, and that an engineer from Johannesburg has secured the option of the ground purchase. Several prospecting licences have been taken out, and the reef is said to be traced over a large area.

A CYANIDE plant to treat 4000 tons per month is in course of erection at the Metropolitan Mine, and is expected to be ready in three months. The mine at the third level is opening up well, and promises improved returns; development being carried on upon all the reefs—*i.e.*, main reef, main reef leader, and south reef.

NOTES ON THE PHILIPPINE ISLANDS.

By JOHN FOREMAN, F.R.G.S.

TO those who know almost nothing of the Philippine Islands, but who have a general interest in out-of-the-way regions, Mr. Karuth's "Notes on the Philippine Islands," published in your issue of the 28th ult., must appear very readable matter.

Unfortunately, the article is not so correct in facts as it is in style of diction, and it is a pity Mr. Karuth did not give us his notes on some colony or county he had himself visited, or about which he had reliable information.

I feel it incumbent upon me to give some data as to my own antecedents to show on what grounds I came forward to amend the statements in the article referred to. I have been in the Philippine Islands several times, and my total sojourn there amounts to about ten years. I think I have travelled and lived in nearly all the civilised districts and in many of the uncivilised regions of that colony. I do not think there is any living being who has seen more of the coast and interior of the Islands than I have. As a youngster I went to Spain and lived there five years before I went to the Philippines, hence I arrived in that colony, not as a novice, but with a knowledge of the official language and experience of Spanish life and customs.

Mr. Karuth refers to the books on the colony published in the English language, and speaks of the "most recent" one as having been compiled a year or so ago by an American traveller, who did not see one-hundreth part of the Islands. I have not been fortunate enough to see any book written by an American. Like myself, Mr. Karuth is F.R.G.S., and perhaps he might find it worth while consulting my work, "The Philippine Islands," to be found in the libraries of the Royal Geographical Society, the Royal Institution, London, the National Library, British Museum, Mudie's, &c., and about the Far East generally. It is, of course, written with an Englishman's impression, but *after* many years of residence and study in Spain and the Philippines.

Mr. Karuth says. "The Spanish Government encourages scientific research. . . . . Those archives are filled to overflowing with invaluable information, possibilities," &c. . . . . The archives are doubtless invaluable to one who seeks to write a history of the Philippines after the style of Prescott's "History of the Conquest of Mexico," but not for up-to-date information on the mining and commercial *facts* of the colony.

He says: "The number of its inhabitants is estimated at over 10,000,000." By whom is it so estimated? The exact number of inhabitants under Spanish Dominion can be very nearly computed by ascertaining the number of *cédulas personales* or documents of identity issued to every person in the Islands, native, Spanish, or foreign, above the age of 18. My computation is less than 7,000,000.

With regard to civilisation having been established by example rather than by force, it was a necessity, for the Spanish troops were fully employed in America at the time of the Philippine Conquest. Moreover, there was no powerful and well-organised Government to quash as there was in the lands of the Incas and Aztecs. I have resided in Mexico, and am cognisant of what I am writing. I came back to London from the Philippines three months ago.

Mr. Karuth quotes as follows:—"The Spanish Government has never, in the case of its dominions, pursued, like other nations, the visionary and pernicious principle of drawing a direct profit from the commercial industry of its colonies by appearing in the character of sole or chief merchant."

I had lived in the Islands some years when, in 1883, the Spanish Government did cease to be the sole or chief merchant in tobacco, and the Government had been sole merchant in that commodity since the year 1781. The Government was not many years ago the sole or chief merchant in alcohol. Opium trading is to-day a Government monopoly rented out to a contractor.

Again he quotes: "The Spanish Government has rested satisfied with deriving a revenue from a fixed capitation tax on its subjects."

I never paid a capitation tax, but I have receipts at a few yards from where I am writing for taxes, which I paid during many years, and the same taxes are paid by natives.

The Spanish Government very rightly, and like other governments, of course, did not in my time rest satisfied with deriving a revenue simply from a fixed capitation tax. There are a score of taxes direct and indirect, and in the earliest times there was the *Sanctorum* tax of one real and a half each person over 18, besides the capitation tax.

A friend of mine who now resides in Hampstead, and who drew my attention to Mr. Karuth's article, paid taxes on several heads during the 20 years he lived in the Philippines.

In the sixth paragraph Mr. Karuth speaks of the peaceful nature of the people over whom the Spanish Government claim dominion, and quotes "a British authority of unimpeachable standing." But all that is ancient. We want modern information. My advices by a recent mail tell me that a war was being carried on against the natives in the south of the Archipelago, under the leadership of my intimate friend the general in command of Mindanao Island. This is the third little war there since I first knew the Islands.

Gold does exist in some of the Islands, and to show to what extent, I think I cannot do better than apply to the Philippine Archipelago the wording of the paragraph in this valuable journal which follows Mr. Karuth's article. That paragraph is headed, "The Wuntho Gold Fields":—"Gold does exist in small quantities (in parts of the Islands of Luzon and Mindanao), where the natives wash the alluvial gold-bearing deposit in shallow round troughs. These washings are generally carried on in the beds of hill streams, and during the rains. These troughs are manipulated by experts on the surface of the water, by which the dross is separated and washed off, leaving the gold dust behind. These washings are now being carried out, and seldom does an individual obtain more than one tical of gold in a month."

After a hunting expedition up the Montalban River, I squatted myself in the water with the native gold-washers, and after three hours with a borrowed trough I found a tiny bead of gold.

MR. G. W. HOPE, writing from the Murchison, says that 507½ tons, comprising trial crushings from 13 mines in the Cue district, gave an average of 2 ounces 17 dwts. to the ton. "As to development, 200 feet is as deep as a shaft can conveniently be sunk by hand labour, and 100 feet is a fair depth for two men on the windlass to haul up a bucket of stone and make headway. From personal experience I can state that every parcel crushed came from an average depth of more than 50 feet, one claim taking stone from levels at 145 feet down to 217 feet, and obtaining over 3½ ounces per ton from the 50 tons treated."

SOME very rich gold stone has been brought in from a spot 80 miles north-east of Kurnalpi by Mr. J. Mills and party. Seven leases of 24 acres each have been applied for, starting from the south-east corner of Lease 739, and continuing along the line of reef about two miles. This new find is over 150 miles north of Coolgardie.

ROYAL CORNWALL POLYTECHNIC SOCIETY.

SIXTY-SECOND ANNUAL EXHIBITION.

THE Royal Cornwall Polytechnic Society held its sixty-second annual exhibition on Tuesday in the Polytechnic Hall, Falmouth, under most favourable auspices. The weather was delightful, and the attendance numerous. The duty of opening the exhibition fell upon the Rev. Canon Galhoon Rogers, in the regrettable but unavoidable absence of the President, Sir J. W. Pease, M.P.

The great feature undoubtedly was the photo-mechanical process work, which was deservedly admired and appreciated, though the other sections came in for a full share of interest.

The Evolution of the Mining Theodolite.

Mr. E. W. Newton, F.G.S., at mid-day read an excellent paper on the "Evolution of the Mining Theodolite," Mr. R. N. Worth presiding. It was generally believed that land surveying was first practised in Egypt. The ancient Greeks unquestionably were acquainted with mine surveying; and before Hiero of Alexandra invented the "cliopter"—200 B.C.—an instrument like the cross-head was in use. The magnetic needle was said to have been first applied to surveying by Flavio Gioja, and an old compass, the earliest form of the miners' dial, dated 1541, was preserved at the Mining School of Clausthal, in the Hartz—a wooden plate 6½ inches in diameter with concentric circle engraved filled with wax of various colours, and with a brass compass box in the middle. The results were laid down by repeating the survey at the surface. Not much progress was made on this—though the results were rough and approximate only—until the beginning of the present century. Meanwhile, however, the "German dial" had been devised, and Sisson had invented the theodolite. The "German dial" was contrived by Balthasar Roetsler, of Saxony, in 1673—a compass box divided into degrees fitted with a magnetic needle, and suspended on gymbals. This was hung on a cord or chain drawn tight between the two points to be surveyed. Then the needle gave the horizonal angle, and the line was measured for the length of draft. Later the inclinometer was added—an arc of brass with a blumb, suspended by a hair. This instrument had been much improved by Mr. Osterland, of Freiberg; but it was not used at the present time in England, and was greatly superseded by the theodolite in Germany. In 1797 W. and S. Jones, of Holborn, manufactured various kinds of cross-heads, protractors, mining dials, and theodolites, unsurpassed, if not unequalled, at the time for excellence of workmanship and design. The ordinary miner's dial of that date was a compass box 4 to 5 inches in diameter, fitted with a pair of sights. The needle worked and gave the bearings on a divided ring inside. Sometimes the metal cover of the dial was engraved and graduated, and the angle of inclination read by the compass box being titled through an angle of 90° by a ball joint and read with a line and plumb. This instrument could not be used in the neighbourhood of iron, but the Messrs. Jones, in 1879, invented a mining theodolite, to which a much longer horizontal circle was attached and read with a vernier. It was fitted with two pairs of sights, one fixed and the other revolving. This was a great advance, and the first instrument which could be used underground in the presence of iron with any degree of accuracy. The theodolite at that time was of very much the same design as the ordinary Y theodolite of to-day, but ruder in workmanship and lacking in many details. During the next five and twenty years improvement both in the dial and theodolite consisted mainly in paying attention to constructive details. The fact that Cornwall was then a very active centre of metal mining led naturally to special attention being paid to the dial by various local surveyors and mathematical instrument makers. And from that time until the present day nearly all the inventions and improvements in the dial had emanated from Cornwall, until that instrument was now acknowledged to be the most correct and portable device, capable of executing any manner of work required in mining known; and as such used in all the most important mines of the world. About 1825 the quadrant was added, and Captain Joel Lean, of Marazion, invented the scale of hypothenuse and base graduated on the reverse side of the same. For this he received a prize of 30 guineas. In 1825 Mr. W. Wilton also commenced instrument manufacture at St. Day. In 1832 the Polytechnic Society was started, and the present perfection of the miner's dial was largely owing to its encouragement. The first award given by the Society for a surveying instrument was taken by Mr. Wilton in 1835; while in the following year medals were taken by Mr. J. Phillips for a dial with larger compass, and by Mr. Joel Lean for his circumferentor, while Mr. Wilton exhibited an instrument adapted for use in the presence of iron by reading the angles in a second and supplementary compass. Hardly an exhibition for the next few years but had some improvement in the dial to show, the most important being the application of a telescope to the quadrant, the dividing of the vernier to read to two minutes the invention of the inclinometer, and an adaption of the German quadrant. About this time, too, the workmanship was materially improved, and in 1858 Mr. Wilton exhibited an admirably constructed theodolite embodying the principle of working with two or three stands. In 1865 Messrs. Newton, Wilton, and Henderson had a medal for a dial levelled by means of a pendulum, but this was found of little use in actual practice, and in 1869 Mr. Henderson took a medal for a dial with two pairs of sights; while in the following year Mr. Newton introduced his magnetic deflector, in which, by aid of an extra vernia, the instrument could be adjusted to any magnetic variation. It did not at first have the attention it claimed; but subsequently an improved form had the highest award of the society. The most important work of late years had been an entire remodelling, by which the dial was now not only of the best underground pattern, but rendered capable of executing highly important surveys by triangulation, almost equal to the transit theodolite. The combined theodolite and dial, first introduced by Mr. Newton in 1871, had been since then gradually improved in detail, and so modified that it could be easily converted into a dumpy level. The transit theodolite had also advanced, not only in design, but in workmanship. One very important point was the very secondary importance now attached to the magnetic needle. The time had almost arrived when the whole survey would be done with the verniers and the true meridian obtained by astronomical observation. With this in view the reader of the paper had devised an instrument to be used with any dial or theodolite for taking the sun at equal altitudes, and he had a further mining theodolite in view which he hoped would show a development into the most perfect, durable, and accurate instrument for any and every form of surveying known.

Mechanics.

The judges in the Mechanical Department were glad to recognise the presence of several exhibits of considerable interest and value, and considered that the department may be regarded as generally satisfactory. They were pleased to find J. Ashworth continuing his improvements in the safety lamp, and recommended his new form with double reservoir for oil and alcohol to managers of collieries for trial. Newton and Son, of Camborne, showed several new and improved forms of dials, theodolites, and accessories, including a meridian finder and a reversible telescope. Their tachy or teleometer take both horizontal and vertical angles, and by an adjustable diaphragm the base of the draft can be measured without using a chain. The judges desired that this instrument should be tried in actual use to test its accuracy against a chained base. On a satisfactory report they will be prepared to recommend first silver medal. They highly commended the improvements generally. The Brunsviga calculating machine had a first silver medal. A first silver medal was also given to Thomas Clarkson for his Rapid sampling machine, and the adaptation of the same principle in his laboratory divider. His device for imparting a rapid vibratory motion to sieves, and his adjustable ruler for drawing short lengths of circular arcs of large radius, had each a first bronze medal. G. Addy had a first bronze medal for the Golightly rail crossing lifter. The judges were glad to see in Bartle and Son's patent roller tongue and guides an application to Cornish stamps of methods which have been applied to cams elsewhere, and recommend them to miners for trial. F. J. Coles's lock nut was ingenious, but too nice in adjustment for ordinary workmen's use. W. Sisson's automatic expansion gear had a first silver medal. He was highly commended for his 1½ horse power engine, being noiseless on account of the absence of suction valve; and for his triple expansion launch engines. Eynon's patent double slip anchor, a combination of double control arms and long feather, securing great holding power even if the control arms be damaged, had a first bronze medal. The judges regretted that better response was not made to the premiums offered by the society for workmanship, regarding such examples as far more valuable than were models of engines and the like. They were glad, however, to find an excellent entry from the Penryn granite class.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

Broken Hill Proprietary Company.

The report of the directors of the Broken Hill Proprietary Company has been issued for the half-year ending 31st May. The report of the refinery works have been a great success. The saving which has been effected is not so apparent in the cost per ton of bullion treated, which has, however, been reduced by 2s. 9½d. per ton for the reason that the whole of the bullion when produced is subjected to a preliminary metallurgical operation at the smelters, the result of which is to partially refine the greater portion of it. The balance, which then carries almost the whole of the impurities, is treated at the refinery, where the process is consequently a more lengthy and costly one; but this course is more economical than shipping the bullion direct to London in its original state. About 165 tons of antimonial metal—a valuable asset—has just been saved, the greater part of which would otherwise have been lost. Work in connection with the extension of the refinery is now well in hand. The directors have completed the purchase of two additional blocks of 20 acres each, adjoining and parallel to the company's main leases on the west side, and known as the Underlay Blocks. The price paid was £100. The majority of these outside leases were secured for the purpose of increasing our water reserves, and are connected with the main leases by lines of pipes; the remainder, including the Brisbane Blocks and the Underlay Blocks, in order to afford more space for the various plants, which it has been found necessary to remove, owing to the extension of the quarries, and rearrangement of other buildings, which were becoming cramped as originally constructed, thus hampering operations. The old concentrating plant has been entirely demolished, and the new building with the necessary machinery, including those parts which had to be renewed and obtained from abroad, is rapidly approaching completion, and a portion should be available and in full working order during the ensuing six months. It has been found necessary to make some important alterations in regard to the leaching plant, which are in course of being carried out. The general manager is at present engaged in formulating a scheme whereby the copper and lead matte, of which a considerable quantity is produced each half year, may be successfully and economically treated. Several ore developments of importance have been met with, chiefly owing to the open cut proving the existence of bodies of rich ore which might never have been discovered had it not been for the removal of the outcrop. The result of these developments has been to make the weekly yield very irregular, which at times have increased abnormally. Shareholders should therefore not be alarmed when the yield falls below the general average, as it is impossible in the management of a mine of such magnitude to maintain uniformity in the weekly output, if actual yields are to be reported, without incurring considerable expence in handling of the ore. The open cut now practically extends from one end of the mine to the other, and although considerable benefits have already obtained from the new system, yet so far these have not been appreciable to the fullest extent. A large amount of dead work has had of necessity to be undertaken so that the quarries may be opened systematically, and in such shape as to admit of their being carrried down to the depth it is proposed, viz., 300 feet. So far, the greatest depth reached is about 100 feet, and not more than 30 feet in some portions of the ground. The reserve fund, which was increased this half-year by the addition of £15,000, now amounts to £125,000, at which it now stands; and although shareholders authorised the board to build this reserve up to £250,000, yet, owing to the exceedingly low market value of the company's commodities, they have decided for the present to delay increasing it further pending developments as to the future of silver. The liquid assets of the company, less outstanding liabilities, amounted to a net sum of £485,535 4s. 1d. The net profit for the half-year amounts to £397,378 7s. 1d., out of which sum £288,000 has been paid in dividends, £24,000 as a bonus, and £15,000 carried to the reserve fund. The loss through the fall in the price of silver has been considerable, but by the exercise of close and careful supervision expenses have been kept down to the lowest point. The cost of production per ton of ore treated for the half-year has been £2 12s. 6d.

Salisbury Gold Mining Company.

The profit and loss account to 31st May shows that the company has paid dividends to the amount of £9300, written off £7383 for depreciation and £7644 for mine development, and carries forward £36,493. Of this balance the accounts show £13,450 to be in cash. The directors have not distributed this, because they intend to join in erecting 20 new stamps (increasing the joint battery from 40 to 60 stamps), and it will be necessary to increase the motive power. For some months the workings have been passing through poor and narrow rock, but it is anticipated that as the deeper levels are exploited, richer results will be obtained.

— It is announced that cheques for the dividend in the LANGLAAGTE ESTATE AND GOLD MINING COMPANY, for the quarter ended 30th June last, have been posted to registered shareholders, and that holders of bearer warrants should lodge for payment, coupon No. 3, at the offices of the London agents, No. 8, Princes-street, E.C., or at the Banque Internationale de Paris, 3 and 5, Rue St. George's, Paris.

— The directors of the LIBIOLA COPPER MINING COMPANY (LIMITED) declared, on Monday, 27th August, an interim dividend of 2s. 6d. per share, free of income tax, payable on 14th September. The transfer books will be closed from the 1st to 14th September inclusive.

— The MOZAMBIQUE COMPANY announce that their revenue for the month of March, 1894, derived from customs, land concessions, licenses, and other miscellaneous sources, amounted to £2836 13s. 4d.

— SPRINGDALE GOLD MINING AND MILLING COMPANY announce a further interim dividend at the rate of 2d. a share, payable on September 27. Holders of share warrants are requested to lodge the same for examination and endorsement on or after September 27.

— At the general meeting of the GLENCAIRN MAIN REEF GOLD MINING COMPANY (LIMITED) held at Johannesburg, an interim dividend of 5 per cent. was declared, payable to shareholders registered on the books on September 9. The transfer books will be closed from the 10th to 20th September inclusive

— The directors of the FLORIDA SYNDIDATE (LIMITED) have issued their annual report, which shows a sum of £1759 6s. 4d. in favour of revenue, to be carried forward into the current account. Mining operations are now fairly under way in a part of the estate where rock of the highest grade—over 80 per cent. of phosphate, with less than 23 per cent. of iron and alumina—is being worked on an estimated thickness of 80 feet, and surrounded by 8 acres of, probably, as rich deposit. The present output is about 30 tons per day. Mr. B. S. Brigg (Chairman) retires by rotation, but offers himself for re-election.

INDIAN MINES.

Nine Reefs Gold Mining Company.

THE south shaft, where the discovery has been made, is near the south boundary of the property, and is in a line with Vivian's shaft to the north and Tennant's shaft in the Balaghat Mine to the south, on the Champion lode. The discovery is of importance, from the fact that the ore shoots dip north, and it may therefore be expected that a rich lode will be found extending from this point northward through the heart of the Nine Reefs property. The lode at Vivian's is yielding in two places 1 ounce 11 dwts. 6 grains, and 2 ounces 5 dwts. 2 grains respectively, but does not at present exceed 8 inches in width. The prospecting shafts are points of great interest, being sunk at intervals along the line of the McTaggart lode, which traverses the property, and upon which the Gold Fields Company are working with such success in West Balaghat Block. The No. 1 shaft near the south boundary is 97 feet deep, with a lode 1 foot 8 inches wide, worth 5 dwts. 14 grains. The No. 5 shaft which is nearest the northern boundary is 58 feet deep, the lode being 1 foot 3 inches wide, and worth 7 dwts. 6 grains. The lode, therefore, is apparently auriferous throughout and is quite likely to improve as depth is attained. The prospects here, apart from the Champion lode, appear to be very encouraging. The company has lately made a call of 6d. per share, and there is still another 6d. to be called up. There are, therefore, several thousands of pounds still at the company's command which can be applied to exploration and development, and in this connection it will be interesting to recall the observations of the mine manager in his last annual report, where he stated that "the mine is well equipped with all necessary machinery for pumping, winding, and milling, for working the mine on a large scale." The stamping power consists of a battery of 20 heads.

Pestarena Mining Company.

The accounts from this mine have been good for some time past, and the gold return for July reached 817 ounces from ore that yields close upon 2 ounces per ton. Appearances seem to warrant the expectation that good returns will be continued. The whole of the debenture interest has been paid off, and profits are accumulating.

THE SOUTH AFRICAN EXHIBITION.—This exhibition, which is to open at the Crystal Palace, in May of next year, promises to form a thoroughly representative display of the varied products and industries of the extensive territories of Southern Africa. The inception of the scheme is due to the directorate of the Crystal Palace Company, who have undertaken all responsibility, financial and otherwise, in connection with its promotion and organisation. Under the able direction of the company's indefatigable manager, Captain Henshaw Russell, R.N., good progress has already been made, and it is certain that nothing that experience and foresight can suggest will be wanting to assure the ultimate success of the venture. A hopeful augury for this success is to be found in the fact that the Duke of Fife has accepted the Presidency, whilst two of the Vice-Presidents are Sir Henry Loch and Mr. Cecil Rhodes—names which are a sufficient guarantee in themselves. The honorary council includes such well-known names as those of Sir Edward Carbutt, Bart, Sir Donald Currie, Sir Charles Mills, Sir Hercules Robinson, Sir Frederick Young, and Messrs. C. A. V. Conybeare, M.P., Alfred Giles, H. Rider Haggard, F. C. Selous, C. Algernon Moreing, B. J. Barnato, and Walter Peace, C.M.G. Many other influential gentlemen, prominently identified with the material prosperity and advancement of the Continent, have also signified their willingness to join the council. The Exhibition, we gather from the recently issued prospectus, will be classified under two main divisions—viz. (1) Exports from South Africa, and (2) exports from the United Kingdom to South Africa. The sub-divisions, under these main headings will, roughly speaking, comprise raw materials, manufactures, mining and machinery, natural history and science, and the fine arts. This classification, it will be seen, is sufficiently comprehensive, and allows of a selection of exhibits from the animal, vegetable, and mineral kingdom. The mineral section, however, will naturally have the greatest amount of interest for our readers, and bearing in mind the fine display made by South Africa at the Mining Exhibiton held at the Palace in 1890, it is to be hoped that the various states will again put forth every effort to secure an adequate representation of their practically unlimited mineral resources. It is intended, as far as practicable, to arrange the exhibits from the different colonies and States in separate courts, and thus secure the distinctive character of each collection. Amusement, too, will be blended with instruction in the scope of the exhibition. In this connection, it is proposed to erect a few Kaffir kraals in the Palace Grounds, where a contingent of natives—in this case, the real article—will give practical illustration of the "manners and customs" of Kaffirdom. Taken altogether, the forthcoming exhibition at the "big glass house" is not likely to prove the least interesting of many that have been held there. Its importance is not over-rated, and we can but wish Mr. Ralt, the Chairman of the Palace Company, and his co-directors, that need of success which their plucky enterprise so fully deserves.

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An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

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LONDON: SEPTEMBER 1, 1894.

MINING FALLACIES.

IN the extraordinarily protracted period of depression from which the mining industry, in common with trade in general, has been suffering all of the world over, speculation has been almost at a standstill, and most of us have well-nigh forgotten what the prospectus of a mining company looks like. But whilst no one can desire more ardently than ourselves that the industry to which we are more particularly devoted should speedily resume its wonted appearance of activity, yet we need not on that account forbear from trying philosophically to extract what comfort we can from the reflection that "Sweet are the uses of adversity," and in the dearth of more absorbingly exciting matter, it may not be amiss to devote a spare half hour to the consideration of the reasons why so many of the prospectuses that we have seen launched in times past have fallen short of their high promise. We are not alluding to those cases—fewer, by far, than is popularly supposed by the outside public—in which prospectuses contained statements that subsequent investigation proved to be false, but rather to those in which the facts set forth were found to be substantially true, whilst the conclusions drawn from them were vitiated by fallacies that had been overlooked by the framers of the prospectuses, as well as by their speculative supporters. It is not worth while to say much about the theory—once greatly in vogue amongst the noble army of mining speculators, which we in England designate as our mining public, but fortunately now pretty completely exploded—that any mine in the neighbourhood of a known rich mine must of necessity be rich also. Not only did neighbourhood, in the mouth of the mining company promoter, bear an elastic meaning, that would have sufficed to destroy all confidence in the theory even if it were in reality a sound one, but as a matter of fact it cannot be sustained even when applied rigorously. Even if two parallel lodes in the same geological formation be investigated, it does not necessarily follow that their mineral contents must be identical in character, because obviously their origin might be referable to two different systems of fissures produced at quite different geological epochs. Nay, even if they can be traced to a common origin, we know too little about the laws regulating the deposition of minerals within their veins, to be able to assert that the constituents, although the same in kind, must necessarily be present in the same proportions. If strict geological parallelism is no proof of equal value, it is obvious that the vague fact that a newly discovered vein is within sight of the chimneys erected upon a successful mine is no valid guarantee for great results to follow the exploitation of the new discovery. Any miner would prefer to take a risk on a vein lying in a good mineral belt rather than on one outside it, but the fallacy we have mentioned is simply the result of exaggerating the meaning of this perfectly sound principle.

Another frequent source of disappointment may be found in calculations based upon surface prospects; and it is too often forgotten that surface prospects, properly speaking, must be held to continue until water level is reached, because all points lying above the permanent water level are likely to be affected by the penetration of surface water. In the upper portions of all veins a slow process of natural concentration is continually going on. Vein matter, in common with all the rocks of the earth's surface, is constantly being disintegrated by the effects of heat, cold, moisture, and oxidation, and in such disintegration, whether mechanical or chemical, the heavier constituents of the decomposed rocks are liable to be concentrated in the rocks lying immediately below them. The valuable portions of mineral veins may, therefore, be either dissolved out of the disintegrating portions and reprecipitated at a lower level, or they may be concentrated mechanically when the lighter portions are washed away. In either case the upper parts of the lodes will yield better results than can be obtained from the average when it comes to be worked on a large scale.

A notable fallacy, well known no doubt to mining engineers, but by no means obvious at first to those who have not made the question a special study, is one that is often met with, especially in undertakings to work gold mines in remote and uncivilised countries. Most mining men of any experience must have been called upon to report on districts, the chief recommendation of which is that they have been extensively worked by the natives of the place; very often the name of the place may mean gold in the native tongue, and nearly always tradition represents it as being enormously rich, and as having had a high reputation for centuries as a source of gold. It is then plausibly argued that if these ignorant natives, with their wretched appliances, their bits of bush rope, and their cocoanut shells, their crude tools, and cruder washing appliances, can have worked these mines so long with advantage, the profit that will be obtained from them by the use of modern methods, by rock-drills and dynamite, powerful mills and high-class concentrators, must be enormous. Of course, instances can be quoted, and will readily occur to everyone, in which such hopes have been realised, and in which mines worked down to the water level by natives have paid handsomely the enterprising speculators who prosecuted their operations by means of modern appliances. These instances are, however, quite exceptional, and it is safe to say that in nine cases out of ten the expected results are not attained, and that for a variety of reasons. In the first place, it is one of the inconveniences of our methods of mining that we have got into the habit of paying our miners. The savage potentates, to whom such mines often belonged were on the other hand troubled by no such consideration; they used simply to tell off a gang of their subjects to go and work their mines for them, and to find themselves whilst they were doing it—and they had such an emphatic manner of enforcing their mandates that they were rarely disobeyed. Obviously labour that costs absolutely nothing will far more than counterbalance the effects of the most scientific of modern improvements, and there is no limit to the poverty of the deposits that could be worked under such despotic conditions. Again in many tropical countries it will be found that natives are in the habit of going long distances to work alluvial deposits, that turn out, on examination, to be far too poor to be workable even by our modern methods. It is usually the case that such deposits are low, flat lying, and perhaps only workable for a couple of months during either the driest or wettest portion of the year as the case may be. During the intervals between the planting and the reaping of whatever the staple crop of the country may be, the native is absolutely idle; if he wants, as he mostly does, a trifle of money to indulge his favourite vice, be it drinking, or opium eating, or gambling, or anything else, he will betake himself to some spot where a little desultory labour for a month or two will provide him with the equivalent of a few shillings. Whatever he gets is all profit, for he is leaving no other labour undone whilst he prosecutes his gold mining, and however poor the deposit may be, it is rich enough to answer his purpose. When, however, the European comes along and wants to work steadily all the year round, wages go up with a bound, because for every man engaged in regular mining work, there is one man less to raise food for the community. Moreover, it is very often found out afterwards that climatic or physical conditions do not admit of anything like continuous work, and it is soon seen that modern methods, with their inevitable heavy prime outlay for machinery,

are not adaptable to localities that can only be worked for three months in the year. Again, it often happens that natives work districts where there are fairly rich patches, but only of small area and isolated from each other by considerable distances. There seems, as a rule, to be amongst natives that species of "honour among thieves" that prevents their robbing each other, but that also induces them to combine to rob their foreign employers, so that the amount of supervision required in such cases soon runs away with the greatest part of the profit. Moreover, it often does not pay to put down costly machinery for working very small patches, and often, too, their small extent makes economical working, which is based on handling large quantities of material, an absolute impossibility.

These are the principal considerations that should make mining speculators cautious when they propose to open up a mining country hitherto only worked by its own native inhabitants, but we have by no means exhausted the list. As we have already said, there are certainly many cases where the introduction of modern methods and machinery has resulted in the establishment of splendidly successful mines, but our object has been to point out the reverse of the picture, and to demonstrate that it does not necessarily follow that because a district has long been worked by the natives, it is bound to yield far better results in the hands of Europeans. The argument is such a specious one, and the reasoning against it is in many respects so technical, that we have thought well to point out that, although it is not a very obvious one, there really is a fallacy underlying it.

THE AMERICAN TARIFF AND THE METAL MARKETS.

THERE is good news for investors engaged in tin, copper, iron ore, and other mining enterprises, which should have an important guiding influence upon their operations. As will have been observable from our last two or three issues, the metal markets are beginning to move up, and the best results are anticipated. Not only so, but the Cornish tin and share market is responding to the movement, and a more confident state of things is now beginning to manifest itself there than at any time previously this year. The immediate cause of all this excitement is the passing of the American Tariff Bill, which has given to the markets an amount of expectation and confidence, which has long been lacking. Indeed, the passing of the measure seems to have given to trade and investment just that stimulus which the whole trade of the world was wanting, and once it becomes law we look with confidence for a general revival, not only in metals and commerce, but in all descriptions of metalliferous mining. To the mining and metal markets no portion of the new tariff is more important than that providing for the admission of block tin in future duty free. This assistance to the tin market was badly needed, for stocks are heavy, and the supplies for August have again been on a considerable scale. Twelve months ago the stocks of tin amounted to 13,461 tons, whereas they are now something over 20,000 tons. The estimated stock in America is fortunately only 2670 tons, compared with 6600 tons at this time last year. Early in August, as our metal markets reports showed at the time, extensive purchases of tin commenced to be made in anticipation of requirements on American account, as soon as the Tariff Bill should have passed. Larger quantities were also expected to be wanted by the Welsh tin-plate manufacturers from the renewed life in that industry, which is looked for as the reduction by one-half of the duty on tin-plates. The result was an advance in prices, which at one time amounted to as much as £6 10s. per ton on block tin, compared with the rates ruling before the excitement commenced, and which almost annihilated the £10 per ton difference on the wrong side between the price of tin as recently ruling and the figure of twelve months ago. Although the whole of this advance has not been maintained, the position of the tin market is greatly better than a few weeks ago, and Cornish shares are sympathising, the situation being one full of promise for the investing public. Some surprise has been expressed that in the face of the present position in America, American holders should be willing to sell for export without any increase in value. But it has to be remembered that, in spite of the rise in silver, Straits merchants are able to make a good profit on shipments. In all probability, if the white metal continues to harden they will ship largely, and production will be further extended. The copper market is benefiting from the new tariff owing to the increased consumption, which is certain to take place in America with the revival in trade which the settlement of the tariff business has already commenced to bring about there. This improvement of the American markets themselves is one of the most important effects likely to flow from the new legislation. For the last year or two the United States have passed through an industrial crisis of perhaps unprecedented severity. Other causes may have been at work, but undoubtedly the most obvious cause is the uncertainty which has prevailed upon the Customs' question. No one knew what the future tariff would be. It seemed likely that the conditions under which productive industries in many departments have grown up might be largely changed, and before venturing upon further outlay it was judged necessary to await the result of Mr. CLEVELAND'S attempted legislation. Now, however, all this is at an end, and American business is likely to experience an immense impetus. United States' importers and producers will now be able to order from abroad, with reasonable assurance that their stocks will not be exposed to sudden depreciation by the enactment of new and lower duties, and the removal of the late suspense and uncertainty should go far to remedy the late condition of the market. The increased demand for copper on the other side of the Atlantic will bring about a falling off of the exports of the metal to this country, particularly as it is reported that the output in certain mines in America is to be reduced. The visible supply of copper at date is only some 51,000 tons, and with the prospect of smaller quantities to be imported during the rest of the year, and a material curtailment of the Japanese production prices on the London market are safe to continue to rise. Probably no great importance is to be attached to the rumours of a new restrictive agreement among the European and American copper mines. But without this there is quite sufficient to lead to a continued upward movement in the copper market. On tin-plates the American duty has been reduced to nearly one-half, or from 2 2-10 cents per lb. to 1 1-10 cent per lb., and this reduction is to come into operation on October 1st, although in all other classes the new duties take effect at once. The reduction should lead to a marked revival of prosperity at the tin-plate works. Many of the mills in Wales which are now closed will be reopened and largely augmented. Transatlantic demand is certain to be experienced, consumers having for some time past been keeping stocks at the lowest possible point. Already prices on the tin-plate market have risen 6d. per box, and many makers are holding out for an advance of 1s. Under the MCKINLEY tariff the Americans have laid down numerous tin-plate plants for native production, and there is no doubt that the new industry will go on extending, but not, we fancy, sufficiently to rob Wales of her greatest tin-plate market for some years to come.

NOTES AND COMMENTS.

IN one of our leading articles this week we deal pretty fully with the effect the new American tariff is likely to exert upon various classes of minerals. Indeed, the benefit of it has already been apparent, for no doubt it is in great measure owing to this that the prices of tin, copper, and lead have slightly, but hopefully, risen. Therefore, Mr. Peter Watson had great reason for forecasting a better future for the Leadhills Company than the latter has experienced during the past two years. The meeting of this company was held on Wednesday, and as we give a full report of the proceedings, it is scarcely necessary to do other than advise our readers to peruse it. The past year's history can be told in a very few words. The price of lead—the staple product of the company's mines—has been, as we all know, exceedingly low, and in consequence the concern has worked at a loss. But a rise of £1 or £2 will turn that loss into a profit. That advance has already taken place, and as the company have accumulated many hundreds of tons instead of selling it—thanks to Mr. Watson's foresight—the next twelve months should witness a prosperous time for the shareholders. At any rate, we sincerely hope so.

A PROPOSAL of much importance to Australian Gold Mining is afoot in Sydney. There is to be a competitive exhibition of gold saving appliances, which will be shown in full working order. All kinds of machinery are included within the ample scope of the schedule. Special classes will be devoted to alluvial and reef gold-saving machinery, beach washers, crushing machinery, amalgamators, ore pulverisers, rock-breakers, calcination modes, systems of treatment for concentrates, hydraulic sluicing machinery, and numberless other branches of work remotely or nearly bearing upon the industry, which more than any other is associated in the mind with the continent-colony. The scheme does not stop, however, at this point. There is to be a sort of essay competition upon the various branches of mining work. Prizes will be offered for a set of model regulations for mine managers, and for a prospecting handbook. These leading particulars of the project suffice to indicate the utility of the exhibition in no uncertain manner. Practical and theoretical phases of the industry are to be judiciously commingled in the exhibition, which, it is certain, will give a strong impetus to colonial mining. It is highly satisfactory to learn that the value of the movement is receiving general recognition. The exhibition will be admirably housed in the Exhibition Building, and the arrangements, many of which are already consummated, will be in the hands of Mr. L. W. A. MacArthur, of Sydney.

IN an article containing a critical description of the mining machinery of the Rand, the *South African Financial Record* points to the enormous benefits which have accrued from properly-equipped plants. The few sanguine adventurers who contemplated the possibility of taking large profits out of mines without the initial expenditure of any sufficient capital came early to see their mistake, and were all ultimately constrained to develop and work their properties on a miner-like and adequate scale. The days, indeed, of rudimentary mills and crude appliances are over, and it is pretty generally understood that no mine can be made to pay unless a satisfactory plant be laid down and operations pursued on a respectable scale. The phenomenal Rand boom occurred just in the nick of time, when the large reduction in the gold production of the world exerted an unfavourable influence upon the machinery trade. A revival took place, and the principal American and English companies ran together in the race for custom. In a wonderfully short space of time this new gold field became fitted up with plants second to none in the world. The keen competition for supplying the Rand has narrowed down profits to such an extent that in some quarters a fear is entertained that the quality of the workmanship might be injuriously affected. In any case the fault will lie with those who prefer cheapness to solidity.

A SCHEME for the institution of a School of Mines has been drawn up in Kimberley, and the mails bring information that its establishment is only a question of time. Already a course of study has been formulated, to include practical work at Kimberley and the close study of machinery and the various gold quartz formations. No doubt the scheme will receive Government support, in addition to that of the directors of the leading mining companies whose success depends upon the assistance of fully qualified engineers, acquainted not only with the industry in its general form, but also with the modifications of it occasioned by the peculiar conditions of that particular locality. It seems to be fully recognised that a start must be made in a small way. Not all that could possibly be desired of such an institution will be gained at the outset. A modest beginning may, however, lead to results excellent in every way, especially where the conditions for study are so favourable as must inevitably be the case in the heart of so important a mining district.

WHATEVER pessimists may choose to say in the matter, there are abundant indications of a renewal of public confidence in the most ancient of all industries—mining. The professional company promoter still pursues his calling energetically, but his modes are tempered with something more of regard for the public pocket. In fact, he appears to have awakened—at the eleventh hour, perhaps, but still better so than not at all—to a more enlightened grasp of his own interest than to foist upon the public any rickety old concern that comes to hand with all the glowing eulogy which should be reserved alone for a Ferriera or a Heriot. Thus the signs of a gradually returning speculative propensity mark the approach of better days. Booms do not happen so frequently to hurry the investor out of his usual caution; but, on the other hand, there are more solid undertakings put in a moderate way within reach of the British capitalist.

THE Demerara mind is at present exercised about certain numerous thefts of gold at the Guiana diggings, and the result has taken the form of a proposal to empower by legislation the Government officials to search suspects. The measure, when passed, will be a timely one, and if ably enforced will effectually reduce to a minimum these illicit dealings in gold. The power thus conferred upon the officials will require to be discreetly used, else the benefits of the enactment will not compensate for the inconvenience cast upon innocent parties by mistaken suspicions and partial arrestment. Rightly used, the measure may be a beneficial one, and when the Bill comes before the Colonial Government, no doubt it will receive favourable consideration. One good feature of the proposed ordinance will be that the criminal will remain unable to shield his guilt behind that of his subordinate accomplice. Aiding and abetting is equally liable to punishment with the prime offence. This secondary instance of infamy is almost more despicable than the former, seeing that it lacks the amiable characteristic of pluck. The *Demerara Daily Chronicle* hints not obscurely that the undignified and cowardly status of complicity may be fastened upon individuals in highly unsuspected quarters.

AN industrial exhibition, covering a wide area, has been projected to take place in Sunderland during November. The promoters of the undertaking have been encouraged to formulate their scheme by the extraordinary success achieved last year by a similar exhibition. The three departments prominently associated together in the idea of the undertaking are the marine, electrical and engineering branches, all of which, taken together, form the basis of the larger part of the trade in the Sunderland district. Reference to any one of the many elementary geography books in circulation verifies Sunderland as the centre of a large shipbuilding trade. The scope, then, of the exhibition will be co-extensive with the industrial pursuits of the district, and should, upon that account, receive a hearty support and co-operation from the people in whose midst it will be held. To insist now upon the benefits of such an exhibition would be altogether a superfluous task. Since 1851 there have not been many doubts entertained upon that score, and if the fact has not altogether justified the somewhat Utopian ideas entertained of it, there has at least been a sufficiently strong impetus to the intercommunication of ideas to justify, in a large measure, the forecast previously made. Whatever may be the financial result of the Sunderland venture—and by past experience it should be satisfactory—there will be highly beneficial results accruing to the commerce and society of the district.

RECENT mails bring news of the oddest corner ever recorded in the economic annals of the world. A Butte alderman has actually achieved a corner in old tin cans and scrap iron. The owner of a lease of mine water from the Anaconda needed a large supply of these generally unwelcome articles, and men were regularly engaged in their collection. The alderman, who must be a man of originality, evolved the brilliant idea of making personal profit out of the extraordinary situation, and accordingly gathered together all the available castaway salmon tins and iron hoops to the extent of several cartloads which he put into his magazine. The result was a scarcity of what is generally found to be too plentiful, and Mr. Ledford, the lessee of the mine water, is in a difficulty. The ingenious member of the Butte Corporation is said to have set his ambition on a partnership with Mr. Ledford, and hopes to attain his object by thus easily profiting by the salmon-tin famine. Greater men have possessed nothing like this capacity to control circumstances.

THE philosopher of the guide-book does not often look very far into the heart of things. An occasional evidence of keen insight is to be met with, but the rule stated applies in the majority of pictorial literature distributed about our coasts. This reflection is occasioned by the perusal of an elegantly illustrated guide to Cornwall, the home mining district, which has appeared to us one of the exceptions noted. The writer of one of the articles dealing with Truro professes to discover in mining the agency by which a union has been effected between th

landed and the commercial interests. "It is noteworthy of Cornwall," says he, "that few of its leading families have held aloof from trade and commerce. Landholding pure and simple has for ages been rather at a discount. In all probability mining was the link. The owner of a mineral property in ancient days took a share of the produce of the mine worked on his property in kind; and so becomes so far a trader." Here is, perhaps, a missing link in the more philosophical aspect of the politico-economical science. The matter rests on the question whether or no this sociological speculator has sufficiently verified the fact.

OUR CITY ARTICLE.

FRIDAY EVENING.

THE MINING MARKET.

A strong and promising week.—Several shares advance.—Chartered fluctuate.—Nundydroogs firm.—West Australian Gold Fields the chief feature.

DURING the whole of the week the Mining Market has displayed continued strength and firmness, which is very promising at a time when the holidays are nearly over. Indeed, many take it as a sign that business will be pretty brisk when the autumn sets in, and it is to be hoped that these prognostications will be fully realised. Taking the South African market first, we must congratulate ourselves upon the activity that has characterised dealings in nearly every class of shares. Champ d'Or especially have been prominent, due, there is little doubt, to the promising information published last week in the columns of *The Mining Journal*. There has been a wonderful demand for the shares, so much, indeed, that they have been almost unattainable. Then, towards the close of the week, New Rietfonteins came to the front, owing to the circulation of a rumour that the lost reef has been recovered. Then, again, diamond shares have quite recovered from the depression that affected them all last week, and are at the present time firm and hopeful. Chartered, on the other hand, have been in a rather fluctuating state, but the tone is strong. In the Miscellaneous section, Indians have been well supported, especially Nundydroogs. Australians have also been in good demand, but undoubtedly the great feature has been the persistent rise in West Australian Gold Fields. The demand for them has been so great that they are now over £1 premium, and bid fair to go higher yet. The tone in this section of the market closes firm.

British Mines.

The past week has been a more quiet one in the Cornish share market, the recent rapid rise having brought out a few sellers, and for the time this "spurt" seems to have somewhat exhausted itself. Tin, after relapsing, has again recovered, and the general tone at the close is firmer. Carn Breas have not moved much after dropping to 8¼. Dolcoath, Tincroft, East Pool, and West Kitty have been well supported, and are still in demand. Killifreths are quiet, whilst dealings in the lower-priced shares have been limited.—Risen: Dolcoath, 10s.; East Pool, 5s.; South Crofty, 2s. 6d.; Tincroft, 5s.; West Kitty, 10s.; Wheal Agar, 15s.; and Wheal Kitty, 2s. 6d.—Fallen: Cook's Kitchen, 7s. 6d.; Polberro, 5s.; South Frances, 7s. 6d.; and Wheal Basset, 10s.

South African Shares.

The South African market opened this week hopefully, prices continuing firm, notwithstanding that last Monday was on the very eve of the settlement. Chartered were again conspicuous, the shares advancing to 35s. Exploring were bid for at 4⅜, and Bechuanaland changed hands at 26s. 3d. Among Rand shares Henry Nourse were bought at an improvement of ⅛. Other descriptions which received favourable attention were Heriot, Jumpers, Langlaagte, Primrose, Robinson, Geldenhuis Deep, Henry Nourse, Rand Mines, Van Ryn, Randfontein, Luipaard's Vlei, and Afrikander. Diamond shares were again flat. The carry-over on the day following occupied but little time, the contango rates being unusually easy. Business for the new account was firm in all descriptions except diamonds, which were again markedly flat. Jumpers, Henry Nourse, and Geldenhuis Estate were much inquired for. Champ d'Or were also eagerly sought after at 2⅛, but the scarcity continuing, were not obtainable at the price. Champ d'Or Deep hardened to 11s. 3d., Sheba improving to 28s. 9d. Slight rises occurred in Ferreira, Robinson, Worcester, Metropolitan, and others. Chartered closed no better than 35s. 3d., but other land descriptio is generally maintained their advances. Wednesday witnessed a continuance of activity in this department of the market. Champ d'Or again recorded the greatest rise, the shares advancing as much as 7s. There was also a strong demand for Robinsons, which rose to 6 7/16; Meyer and Charlton advanced ¼, whilst Chimes and Wemmers were considerably inquired for. Chartered were strong throughout the day, and closed with a rise of 1s. 6d. at 38s. 9d. Bechs. hardened to 27s. 3d., Oceanas to £2, and Exploring to 4 11/16. Both De Beers and Jagers displayed an improved tone. The strong tone continued throughout Thursday, on which day New Rietfonteins were the feature, the shares recovering to 1⅜. Cities advanced to 15 7/16, Simmers to 7 9-15, Durbans to 5⅜, Langlaagte to over 4 7/16 buyers, and Wemmers to 4 11/16. Geldenhuis Estate were firm at 5⅛, Geldenhuis Deep at 4, and Primroses at 4¼. Diamonds were again firm and strong, De Beers advancing to 16 7/16 and Jagers to 13 3/16. Chartered, on the other hand, were somewhat neglected, and closed lower at 36s. 3d. Bechs., however, were better at 27s. 6d. Explorings hardened to 4 11/16, and Consolidated Gold Fields were firm at 2⅜.—Risen: Afrikander, 1s. 3d.; Bechuanaland, 1s.; Barrett, 9d.; Block B, 1s. 6d.; Bultfontein Consolidated, 2s. 6d.; Champ d'Or, 12s. 6d.; Champ d'Or Deep, 2s. 6d.; Chartered, 1s. 6d.; Consolidated Gold Fields, 1s. 3d.; Consolidated Deep, 1s. 3d.; De Beers, 17s. 6d.; Durban, 2s. 6d.; East Rand, 1s. 6d.; Exploring, 10s.; Ferreira, 2s. 6d.; Geldenhuis Deep, 2s. 6d.; Geldenhuis Estate, 2s. 6d.; Geldenhuis Main Reef, 6d.; Glencairn, 2s. 6d.; Gold Fields of Mashonaland, 1s. 3d.; Grahamston, 6d.; Graskop, 9d.; Hampton Land, 5s.; Henry Nourse, 6s. 3d.; Heriot, 2s. 6d.; Joe's Luck, 1s.; Jubilee, 5s.; Klerksdorp, 6d.; Langlaagte, 5s.; Lisbons, 6d.; Luipaard Vlei, 1s. 6d.; Mays, 6d.; May Deep, 6d.; Metropolitan, 1s. 3d.; Meyer and Charlton, 7s. 6d.; Modderfontein, 7s. 6d.; Moodies, 6d.: New Chimes, 3s. 9d.; New Croesus, 1s. 3d.; New Jagers, 2s. 6d.; Rietfontein, 7s. 6d.; Rand Mines, 22s. 6d.; Randfontein, 1s.; Robinson, 7s. 6d.; Roodepoort, 4s.; Sheba, 1s.; South African Gold Trust, 1s. 3d.; South African Trust and Finance, 6d.; Spes Bona, 1s.; Spitzkop, 1s.; Stanhope, 2s. 6d.; Transvaal Coal, 1s.; United Roodepoort, 2s. 6d.; Van Ryn, 3s. 9d.; Wemmer, 2s. 6d.; Witwatersrand (Knights), 1s.; Worcester, 6s. 3d.; Zambesia, 5s.—Fallen: Balkis Eersteling, 3d.; Bantjes, 6d.; Central Africa Zoutspansberg, 3d.; Gordon Diamond, 6d.; Oceana, 2s. 6d.

Indian and Miscellaneous Shares.

Like the South African section, this market opened the week with a hard and firm tone. Monday's changes showed no very great rises, but quotations were all round hard, and the state of the market was said to be such that very few lots were offering, even where there was an advance. Broken Hills and Jay Hawks were better, with silver and the small supply on the market. Graskop, by reason of their low quotation, attracted something more than ordinary attention, the Spitzkop movement directing regard to the possibilities of this class of share. Indians were not, on the whole, more than fairly steady. Nine Reefs, however, continued to command notice, from their speculative merits. Brilliant and St. George, and Victory were in demand, but sellers did not respond by the offer of shares. On Tuesday and Wednesday the tone was again strong and steady, though, of course, much of the time was directed to the arrangement of the account. Amongst Indians, Nundydroogs and Nine Reefs were conspicuous, and in copper shares Rio Tinto rose ⅛ and Copiapo 1/16. Thursday witnessed a continuation of the firm tone. Broken Hill Props. revived to 62s., whilst New Queen, Bonnie Dundee, and Australasian hardened. Amongst Indians, Nundydroogs were still the feature. Mysore Reefs, however, slightly recovered, and Nine Reefs and Kempinkotes were better. In the other miscellaneous securities St. John del Rey, Elkhorn, Harquhala, Montana, and Golden Feather closed at better prices, whilst West Australian advanced to £1 premium. Risen:—Aladdin, 1s. 3d.; Alamillos, 2s. 6d.; Alaska, 3s. 9d.; Australasian, 3d.; Brilliant, 6d.; Brilliant Block, 1s. 3d.; Brilliant St. George, 2s.; British Broken Hill, 6d.; Broken Hill Proprietary, 1s. 3d.; Champion Reef, 3s. 3d. (allowing for dividend); Don Pedro, 6d.; Elkhorn, 6d.; Golden Feather, 6d.; Golden Leaf, 6d..; Holcomb Valley, 4½; Idaho, 6d.; Jay Hawk, 6d.; Kapanga, 9d.; Macate, 9d.; Mason and Barry, 2s. 6d.; Montana, 1s.; Mysore, 5s.; Mysore Harnhalli, 6d.; New Queen, 3d.; Nine Reefs (9s. 6d. paid), 6d.; ditto, fully paid, 6d; Nundydroog, 1s. 3d.; Palmarejo, 3d.; Pinos Altos, 6d.; Richmond, 1s. 3d.; St. John del Rey, 5s.; Rio Tinto, 7s. 6d.; Tharsis, 2s. 6d.; Victory, 2s.; West Australian, 7s. 6d.—Fallen:—Callao Bis, 3d.; Cape Copper, 1s. 3d.; Copiapo, 1s. 3d.; De Lamar, 6d.; Gravel Gold, 1s.; Kangarilla, 3d.; Mosman, 3d.; Mysore Reefs, 1s. 6d.; Mysore West, 6d.; South-East Mysore, 3d.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follow:—

CONSOLS, Monday, September 3.

STOCKS AND SHARES.

Continuation Days.	Ticket Days.	Pay Days.
Tuesday, Sept. 11	Wednesday, Sept. 12	Thursday, Sept. 13
Wednesday, Sept. 26	Thursday, Sept. 27	Friday, Sept. 28

DIVIDENDS ANNOUNCED.

Glencairn Main Reef, 5 per cent.
Libiola Copper, 2s. 6d. per share, payable September 14.
Mount Morgan, 6d. per share, payable September 1.
Springdale Gold, 2d. per share.
Victoria Gold Mining Association, 3d. per share, payable September 7.
Staveley Coal and Iron, A and C, £2 per share.
Staveley Coal and Iron, B and D, 6s. 8d. per share, payable September 26.
African Steamship, 2½ per cent.
Anglo-Italian Bank, 7 per cent.
Babcock and Wilcox, 15 per cent.
Douglas Gas Light, 27s. 6d. per share.
Dublin and Lucan Steam Tramway, 2 per cent.
Forth and Clyde Junction, 7 per cent., payable September 11.
Glasgow and South Western Railway, 4 per cent.
Great North of Scotland Railway, 3½ per cent.
Great North of Scotland Railway Deferred Ordinary, ¼ per cent.
Harrow Gas, A, 7½ per cent.
Harrow Gas, B, 7 per cent.
Harrow Gas, C, 5½ per cent.
Kinloch (Charles) and Co., 8 per cent.
Kinloch (Charles) and Co. Pref., 6 per cent., payable September 21.
Lancashire, Derbyshire, and East Coast Railway, 3 per cent.
Ottoman Gas Ordinary and Preference, 7 per cent.
Queensland National Bank, 3 per cent.
Railway Passengers Assurance, 3s. per share.
South Australian Insurance 1s. 6d. per share.
South Australian Insurance (New), 4½d. per share.
United States Trust and Guaranteed, 5 per cent.
Wembley Park Tower, 3 per cent.
Western Ranches, 5s. 3d. per share, payable September 1.
Wisbech Gas, 3s. per share.
Wisbech Water, 6 per cent.

CORNWALL MINERALS RAILWAY.—The half-yearly general meeting of the Cornwall Minerals Railway Company was held on Thursday, at the offices, 17, Victoria-street, Westminster.—Mr. George Chamberlain presided, and, in moving the adoption of the report, said that the total gross receipts for the six months amounted to £21,592, as compared with £20,219 in the previous corresponding half-year. For the six months working they showed the smallest deficit in any June half-year that the company had experienced since the working Act came into operation. He regretted to state that the directors had received no reply from the Great Western Railway Company with respect to the questions raised by the directors in their last report with regard to the accounts. The board hoped that those matters would have been arranged and settled before that meeting, but negotiations were still proceeding. The Chairman of the Great Western Railway Company had promised their managing director to look into the complaints and questions they had raised as to the accounts. The receipts of the Goonbarrow branch had not come up to their expectations; but they were convinced that there were 100,000 tons of minerals carried by wagons which ought to come over their line. He maintained that the Great Western Company were more or less liable with themselves for developing the traffic of the district, and it was impossible to do that without spending money. The Great Western Company, however, contended that it was the duty of the Cornwall Minerals Company to raise the money to develop the traffic. With regard to the Lostwithiel and Fowey line, the works at Upper Carne Point had made rapid progress, and the junction and two new jetties were expected to be in working order in the course of the autumn of this year. The remaining work for completing the line to the junction with the Great Western Railway at Lostwithiel would be commenced forhwith, and, it was hoped, would be finished and the line opened early in the ensuing year.—Mr. J. H. Lancashire seconded the motion, which was carried unanimously.

MR. ARTHUR M. DINGEY, who has been superintending the erection of the hauling and other machinery at the Sutherland Reef, is in town, says the *Zoutpansburg Review*, on his way to Johannesburg, having completed his work. The prospects of this mine appear to be good. Much development has been done, and there is a large amount of ore at grass. All that is needed in order to commence crushing operations is the erection of the battery, which was bought and paid for some months ago, but has not yet arrived at the mine.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ALASKA TREADWELL. — A cablegram from Alaska announces the August clean-up as follows:—"Shipment of bullion, $65,085; tons of ore milled, 20,271; tons of sulphurets treated, 382; of bullion there came from sulphurets, $23,146; estimated gross expenses for period have been $26,500."

ALADDIN'S LAMP.—The following cablegram has been received from the mine:—"During the last three weeks we have crushed 182 tons of ore, yielding 293 ounces of gold. The Ball mill and 10 stamp mill are now being worked together with satisfactory results. The 500 feet level is looking well. Have resumed sinking winze No. 2."

AMERICAN BELLE.—The following cable information has been received from the mine:—"Output for June month: Ore shipped, 930 tons; value (estimated), 4390; mine expenses $4670.—Output for July month: Ore shipped, 600 tons; value (estimated). $6500; mine expense, $5960."

BAYLEY'S REWARD CLAIM.—The following cablegram has been received by the London office:—"Week's run, 700 ounces; 76 tons."

CAYLLOMA SILVER.—A cable message from the mine says:—"Pumping commenced August 16; water decreasing slowly."

COONGAN MINE (Western Australia).—The following telegram has been received from the manager: "100 tons ore milled this week, yielding 230 ounces of gold. Last week's crushing of 100 tons yielded 200 ounces."

DAY DAWN BLOCK AND WYNDHAM.—The following cablegram has been received from the general manager at Charters Towers:—"Have crushed 223 tons of quartz from No. 2 shaft and 14 level west for a yield of 155 ounces of gold."

DAY DAWN P.C.—The following cablegram has been received from the manager at Charters Towers, giving the result of the crushing for the fortnight ended August 25:—"No. 1 shaft 65 tons, 34 ounces; No. 3 shaft 161 tons, 322 ounces. Have shipped per s.s. *India* 719 ounces.

DARIEN GOLD.—The directors of the Darien Gold Mining Company (Limited) have received a cablegram from their manager at the mines, in which he states that the lode recently discovered carries gold in paying quantities, prospects are encouraging, and he is continuing to sink new shaft.

EXPLORATION COMPANY.—Alaska Treadwell Gold Mining Company.—Cablegram from Alaska announces the August clean-up as follows:—"Shipment of bullion $65,085; tons of ore milled, $20,071; tons of sulphurets treated, $382; of bullion there came from sulphurets, $23,146; estimated gross expenses for period have been $26,500

EAST RAND PROPRIETARY.—The Anglo-French Exploration Company (Limited) as agent for the East Rand Proprietary Mines (Limited) is in receipt of a cablegram in reference to the test crushing with the 10 stamp mill of 1500 tons of ore from the New Comet Gold Mining Company as follows;—"New Comet Gold Mining Company crushing is 14·8 dwts. per ton, including cyanide; the width of the reef crushed is 3 feet 9 inches."

ELKHORN.—Bullion produced in the mill for the week ended August 25, 9048 ounces.

GLENCAIRN.—At the general meeting held at Johannesburg August 28 the directors declared an interim dividend of 5 per cent., payable to shareholders registered on the books at 9th September.

HARRIETVILLE. — A telegram from the mine gives the result obtained during the past four weeks as follows:—"Mons Meg Mine 500 tons, 198 ounces."

ISLE OF MAN.—The secretary has sold 100 tons of this company's ore at £7 18s. 6d. per ton.

JOHANNESBURG PIONEER.—Output for July, 999 ounces of gold.

KAPANGA.—The directors have received the following telegram from the manager, viz.:—"During the month the shaft has been sunk 35 feet.—Coromandel. Have commenced sinking, shaft now down 8 feet. The tributers working on the new reef are still getting rich ore; elsewhere there is no material change.

LADY LOCH.—The following cablegram has been received from Lord Percy Douglas, Perth, West Australia:—"Splendid stone being turned out from Lady Loch Mine (Coolgardie.)"

LAS CABESSES MANGANESE.—Production for the week ending August 18 (six working days), 668·9 tons, or a daily average of 111·5 tons.

MACATE.—A cable has been received from the manager under date August 29, announcing shipment of £550 worth of gold. Also that full crushing would commence on September 10.

MOUNT LYELL.—The London committee have received a cablegram from the Melbourne board to the effect that a rich lode has been struck assaying 1800 ounces (silver) per ton, and that the board regard it as an important discovery and likely to develop into a large body of ore.

MOUNT MORGAN.—The directors have received the following telegram from the head office, Rockhampton:—"We pay £25,000 on September 1 being dividend of 6d. per share (free of dividend tax) for the month of August."

MOUNT ZEEHAN (Tasmania).—The following telegram has been received, dated Hobart, 28th inst.:—"Milled 140 tons of ore during six days for 12 tons concentrates, containing about 9 tons of lead and 780 ounces of silver. Shipped 45 tons per s.s. *Oldenburg*."

NEW RIETFONTEIN.—We shall run the mill during next month if the ore bodies opened up by the developments continue favourable. It is possible 25 stamp mill need not be stopped.

NEW COMET.—The Anglo-French Exploration Company (Limited), for the East Rand Proprietary Mines (Limited), are in receipt of a cablegram in reference to the test crushing with the 10 stamp mill of 1500 tons of ore from the New Comet Gold Mining Company, as follows:—"New Comet Gold Mining Company crushing is 14·8 dwts. per ton, including cyanide; the width of the reef crushed is 3 feet 9 inches." A 40 head mill has been ordered for this company, and it is expected that it will be ready for shipment in a few weeks. It is now proposed to test the ore of the Agnes Munro Gold Mining Company, and with that object 1000 tons will now be put through the mill.

OCEANA TRANSVAAL COAL.—Sales of coal for month of July, 3326 bags of 200lbs. each, compared with 2931 bags for June.

PAHANG CORPORATION.—A cablegram from the mines gives particulars of the output for the month of July as follows:—"In 26 days of 24 hours each 740 tons of stone were crushed, producing 40 tons 6 cwts. of black tin; 20 head of stamps running; working costs, $10,250."

ROYAL SILVER MINES OF POTOSI.—The production for July amounted to 27,380 ounces fine.

VICTORIA GOLD MINING ASSOCIATION.—The fortnightly crushing has been cabled as follows:—"310 tons crushed yielded 570 ounces gold."

WAIHI.—Bullion return for 28 days ending 25th inst. £6200 from 2050 tons.

ZEEHAN-MONTANA.—The following telegram has been received, dated Hobart, 28th inst.:—"Shipped per s.s. *Oldenburg* 170 tons of first-class ore, containing about 115 tons 12 cwts. of lead and 17,850 ounces of silver."

CAPE NITRATE FIELDS.—Dalziel's correspondent at Cape Town sends the following account, given by a correspondent of the Prieska (Cape Colony) nitrate fields. The nitrates of Prieska present the most valuable and richest deposit of nitrate of potash ever found. It is a most valuable substance, not to be confounded with sodium nitrate or Chilian saltpetre, so largely exported from South America, and sold on the London market at £10 per ton, whereas the average price of unrefined potassium nitrate is £6 10s. per ton. The yield of the farms prospected is virtually unlimited, and, while in many of the large kloofs enormous masses of practically pure salt are found, the average in the soil for the whole area may be calculated at 25 per cent. Attention need only be drawn to the working of nitrates in other countries to prove the richness of the most recent South African discovery. Soils containing nitrate of potash are worked in India and Ceylon when containing only 2½ to 5 per cent., and the richest deposits in those countries rarely contain more than 8 per cent., while in Hungary nitriferous soils containing ½ to 2½ per cent. are worked at a profit. The deposit here is most easily extracted merely by lisciviation, or hot or cold water decantation of the clear liquor from the soil into shallow tanks, and evaporation by the rays of the sun, when practically pure nitrate crystallises out. By this process nitrates on a large scale could be produced at less than £2 per ton, and the cost of transport over 140 miles of country to De Aar, and thence by rail and sea to Europe is £5 per ton.

THE FEDERATED INSTITUTION OF MINING ENGINEERS.—The annual general meeting of this Society will be held at Newcastle-upon-Tyne on September 5th, when the following papers will be read, or taken as read:—"The Stetefeldt Furnace," by Mr. C. A. Stetefeldt; "Walling and Sinking Simultaneously with the Galloway Scaffold," by Mr. John Morison; "Timber Bridges and Viaducts," by Mr. Morgan W. Davies, "Explosions in Nova Scotian Coal Mines," by Mr. Edwin Gilpin, jun.; "The Shaw Gas Tester for Detecting the Presence and Percentages of Fire-Damp and Choke-Damp in Coal Mines, &c.," by Mr. Joseph R. Wilson. The following papers will be open for discussion:—"Geology of the West Yorkshire Coal Field, by Professor Lupton (Transactions, Vol. VII., page 137); "The Transmission of Power by Compressed Air," by Professor Goodman (Transactions, Vol. VII., page 234); "The Baum Coal Washing Machinery," by Mr. F. Baum (Transactions, Vol. VII., page 156); "Notes on Coal-Getting Machinery," by Mr. T. H. Wardworth (Transactions, Vol. VII., page 139); "Photography in Coal Mines," by Mr. H. W. Hughes (Transactions, Vol. VII., page 164); "The Coal Fields of Sonora, Mexico," by Mr. James Overend (Transactions, Vol. VII., page 230); "The Oil Shale Industry of France," by Mr. G. Chesneau (Transactions, Vol. VII., page 180); "Spontaneous Combustion in Mines," by Mr. W. S. Gresley (Transactions, Vol. VII., page 206); "The Friction of, or the Resistance to, Air Currents in Mines, Addenda," by Mr. D. Murgue (Transactions, Vol. VI., page 135, and Vol. VII., page 211).

MINERA MINES.—At the 44th annual meeting held on Wednesday, on the mines, the accounts showed that the sales of lead ore and blende for the year ending the 30th June last amounted to £28,948 11s. 11d., but, owing to the low prices, no dividend was declared. The report on the mines, however, stated that considerable discoveries of ores have been made, more especially in the bottom levels, so that there is every prospect of a good profit next year.

SCIENCE EXHIBITIONS AND SCHOLARSHIPS.—The Department of Science and Art publish a list as follows of successful candidates for Royal Exhibitions, National Scholarships, and Free Studentships (Science), 1894:—A. H. Barker, 23, fitter, Pontefract; E. R. Amor, 18 engineer apprentice, Devonport; J. T. Rieley, 25, science teacher, Birmingham; and C. B. Brodigan, 24, draughtsman, London, National Scholarships for Mechanics. C. A. West, 24, teacher, Tottenham, Middlesex; W. H. White, 15, student, Ipswich; H. Dean, 17, student, Manchester; W. C. Reynolds, 24, pharmacist, London; and J. Lister, 18, student, Stockport, National Scholarships for Chemistry and Physics. E. Smith, 25, assistant teacher, Huddersfield, and F. H. Probert, 17, student, London, National Scholarships for Biological Subjects. F. Fisher, 19, engineer, Brighton, Royal Exhibition. G. M. Russell, 22, shipwright apprentice, Portsmouth; S. Stansfield, 21, engineering student, Todmorden; G. T. Morgan, 23, chemist, Huddersfield: W. G. Hall, 18, student, Nottingham; and A. S. Cox, 17, student, Southampton, National Scholarships. C. Smith, 16, student, Solent, Brighton, Royal Exhibition. F. T. Munton, 25, Joiner, Derby; G. Wilson, 22, mechanical engineer, Sheffield; G. E. Ashforth, 16, student, Manchester; G. L. Overton, 19, watchmaker, Bradford, Yorkshire; N. Baron, 21, engineering student, Ulceby, Lincolnshire; and E. E. L. Dixon, 18, student, London, National Scholarships. W. H. Eccles, 18, apprentice druggist, Barrow-in-Furness; F. G. Edmed, 17, student, Brighton; H. T. Hildage, 19, fitter, Altrincham; R. H. Watson, 24, student, Dublin; and H. Hibbert, 16, student, Manchester, Royal Exhibitions. J. W. Button, 23, tool fitter, Oldham; G. H. Stanley, 17, student, London; W. Kraut, 19, mechanical engineer's apprentice, London; J. W. Chubb, 23, draughtsman, London; R. H. H. Duncan, 15, student, Sunderland; and G. George, 18, student, Bristol, Free Studentships. Percy Nicholls, 23, engineer, of Pontefract, obtained the third place in order of merit in the competition for National Scholarships, &c., but withdrew before the awards were actually made.

THE ALBION COLLIERY DISASTER.—While the Home Office is apparently hesitating to resume and continue on its own account the experiments commenced by Mr. Hall in Lancashire, with regard to the explosive qualities of coal dust in mines, mining engineers and colliery managers in South Wales are (says the *Engineer*) making efforts to solve the problem for themselves by tests which are carried out on what may be called for the nonce the "voluntary principle." In the locality there is undoubtedly a great deal of dissatisfaction with the verdict of the coroner's inquest into the causes of the death of the victims of the Albion Colliery disaster. It is not surprising or unnatural that the finding should be regarded as inconclusive. What can be expected of an ordinary coroner's jury—and here were two juries and two coroners, because of the deaths falling in two jurisdictions—when questions of the greatest delicacy and complexity have to be determined? How can the most "highly respectable" body of jurors decide on matters when mining experts have had to confess that for their final opinion they are awaiting more positive evidence? It is only the gravity of the calamity which calls attention to the insufficiency and inefficiency of our present method of investigating its causes. If colliery explosions and terrible death rolls were of as common occurrence as, say, railway accidents, the coroner would inevitably be supplemented or superseded by an engineering expert who would take all the scientific evidence he could get, and present to the Government a report which should at all events have the merit of being impartial and scientifically precise. The South Wales mining engineers are now in doubt as to the relative strength of the explosive powers of coal dust in different pits; in different measures in the same pit, and in different pits dipping to the same measures. The question may be said to depend very largely, if not mainly, on the relative moisture of the workings.

ERRATUM.—In Mr. J. H. Hampton's letter last week on "The De Kaap Mining District of South Africa," the following occurred:—"There are granite, schists, sandstones, trap rock, *aluminium*, &c." Obviously it is a typographical error, and should have read *alluvium*.

NEWS FROM THE COLLIERIES.

NOTES ON THE INDUSTRY.—STATISTICS AND REFERENCES.

THE Northumberland miners recently adopted a conciliation board scheme for the regulation of wages, and a similar plan is now being voted upon by the Durham miners, amongst whom a considerable difference of opinion prevails. The Hebburn lodge, which is known to favour the Federation, calls for an advance of 10 per cent. in wages to form a *minimum* wage in the event of a conciliation board being formed, and the Leitch lodge asks for a 5 per cent. advance upon which to form a *minimum* wage. The miners' officials are pressing the formation of a conciliation board upon the men, and it is expected that it will ultimately be adopted.

THERE are at present no signs of an increased demand for coal, and in some districts the unsettled state of the wages question prevents the conclusion of contracts. A further reduction in price is scarcely possible, but it is hoped that better prices may be realised when the enquiries for winter supplies come in.

IT is calculated that during the nine weeks of the Scottish coal strike £630,000 have been lost in wages to the miners. There has also been a dead loss of 6,500,000 tons of coal, which Scottish collieries would have produced. One of the most noticeable features of this strike is that the country has been able to do without producing coal for over two months. Nearly all the blast furnaces being idle accounts for this in a great measure.

THE Northumberland miners have decided by a large majority not to join the National Miners' Federation. The condition of their joining was that they should withdraw their opposition to the Miners' Eight Hours Bill.

A SERIOUS disaster occurred in the Franklin Mine near Seattle (Washington) last Saturday afternoon, causing the loss of 37 lives. Smoke was noticed issuing from the mine at about one o'clock in the afternoon, and the men in the workings were at once warned. Of the 70 men in the sixth level 40 lingered at breast 62, where the fire was found to have originated, and attempted to extinguish the flames. The fire, however, was beyond their control, and spread to breast 60 and 61. Some of the men fled, but others did not seem to realise their danger, and remained so long that when they attempted to leave all means of escape were cut off. It is evident that there was time for all to escape, since men working at a more distant breast reached the shaft in safety. The bodies were all found south of breast 62, within a space of 500 feet. Some were badly bruised, and bore wounds showing that the men had thrown themselves against the timbers of the gangway in a wild endeavour to escape. The majority, however, were unmarked, while the features presented an appearance of quiet repose, indicating that death had been speedy and painless. An immense number of people assembled at the pit mouth, and many painful scenes were witnessed as the bodies were brought to the surface. The mine belongs to the Oregon Improvement Company.

A MINERS' Congress was held at Essen, on Sunday, for the purpose of establishing a Christian Miners' Organisation for the Dortmund mining district. The delegates present numbered 424, and represented 185 associations. It was unanimously decided to establish a labour organisation of the Christian Miners of the Lower Rhine and Westphalian Coal Fields. It was also resolved that every member should be required to sign a declaration condemning the aims of the Social Democrats, that no part should be taken in the polemics of religious and political bodies, and that it should be the object of the organisation to bring about the payment of a fair wage corresponding to the value of the labour done and to the hardships inseparable from a miner's calling.

THE annual demonstration of the Derbyshire miners took place at Chesterfield, about 10,000 being present from all parts of the county. Mr. Haslam (secretary of the association) said there were now 20,000 members, and, notwithstanding the drain on their resources by the Scotch strike, there was £10,000 in the bank. He and three others were going to London on Wednesday to make out the case for the surfacemen and lads prior to the meeting of the Conciliation Board on that subject. Sir Walter Foster, M.P., wrote congratulating the association on their successful fight for a living wage. He had always held that no industry could be righteously conducted which did not make its first consideration the lives of the workers. That principle had now won a position which would make it unassailable in the future. There was no reason to be discouraged respecting the Employers' Liability and Eight Hours Bills. Victory was assured for both in the near future. He hoped the Federation and Trade Unions generally would be able before another session to convert those who preferred the interest of the few to the common good of all. Mr. J. Burns, M.P., said it was a hopeful sign that so much importance was being attached to shorter hours. The only way in which wages could be permanently raised was by reducing hours, the regulation of output thereby, and the absorption of unemployed consequent therefrom. Other gentlemen addressed the meeting, and resolutions in favour of a compulsory eight hours day, condeming the House of Lords for "mutilating" the Employers' Liability Bill, and agreeing with the wages settlement, were unanimously carried.

THE gates of the Bardykes Colliery, Blantyre, were on Tuesday attacked by a picket shortly after midnight. A crowd of several hundred persons assembled, and stones were thrown at the police. A detachment of mounted constables arrived, and charged the mob with batons, one man being seriously hurt. Notwithstanding the efforts of the picket 80 men are now at work at Bardykes Colliery.

AT a meeting on Wednesday of the Black Country Miners' Wages Board, held at Dudley, Colonel Cochrane in the chair, the average selling price of coal and slack during the previous three months was shown to be 5s. 10·81d., which under the amended sliding scale involved a reduction of 4d. and 3d. per day in miners' wages in the thick and thin coal districts respectively. A resolution was passed to reduce wages accordingly.

BY an overwhelming majority the Fife and Kinross miners have voted in favour of accepting the English Conciliation Board terms in preference to adhering to the original demand for the restoration of the whole of the last reduction of wages. The voting is as follows:—For Conciliation Board terms, 5332; against, 221; majority for, 5111.

A DISTRESSING accident occurred at eight o'clock on Friday morning at Pentre Pit, Rhondda Valley. Two young fellows named William Thomas and John Hunt were waiting for an empty journey of trams at the bottom of the drift in the new 6 feet vein, when one of the shackles broke, and a tram running wild instantaneously killed Thomas, while Hunt sustained such severe injuries that his life is despaired of.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET—LONDON, AUGUST 31.

Copper.

THERE have only been outside speculative orders on the market this week, but it has been carefully nursed by one or two of the dealers, the result being a rise of about 13s. 6d. above last week's close. The improvement, however, did not last, and we close easier again, though still above last week's close. We append a more detailed summary of this week's operations. The G.M.B. market opened on Monday firm at £40 7s. 6d. three months, and quickly improved to £40 17s. 6d., whilst cash G.M.B.'s were done up to £40 10s. The firmer market reported from America, where Lake copper has been gradually rising in value, and where many large producers were reported to be out of the market, was the chief cause of the improvement here. Early on Tuesday £41 was done for three months, but after this things quieted down somewhat. Prices underwent a reaction, £40 13s. 9d. being taken on Wednesday for three months. The market then rallied to £40 11s. 3d. s.c. and £40 17s. 6d. three months, subsequently again receding—viz., to £40 5s. s.c. and £40 12s. 6d. three months, which prices were paid on Thursday evening. To-day has been a quiet market without further fluctuations, and we close dull at £40 3s. 9d. to £40 5s. s.c. and £40 11s. 3d. to £40 12s. 6d three months.

Tin.

There are at present two distinct interests in tin, manipulated by two antagonistic parties who formerly worked together. The general sympathies of the markets appear to be rather on the bullish side. With the sharp rise in silver, tin opened firm on Monday at about 20s. per ton higher s.c., changing hands at £70 15s. up to £71 5s., and three months up to £71 15s. On Tuesday silver went lower, and moderate sales sufficed to depress the market to £70 17s. 6d. s.c., though, only temporarily, Wednesday witnessing a recovery to £71 5s. s.c., Thursday to £71 10s., and Friday morning to £71 17s. 6d., after which there was a relapse to £71 7s. 6d. s.c. The market closes quiet at £71 5s. to £71 7s. 6d. s.c. and £71 12s. 6d. three months. In the Dutch market s.c. Billiton was quoted successively 42½ fl., 43 fl., 42⅝ fl., 43¼ fl., and 43⅜ fl., the closing value, whilst the net rise in the price of Banca over the week is one florin, the close being at 44½ fl.

Pig Iron.

The Scotch pig iron market has this week undergone a very considerable rise in price. It opened at 43s. 4d. s.c. Scotch, and after touching 43s. 2d., gradually advanced to 43s. 9½d, which was paid yesterday. To-day there was a decline to 43s. 6d. s.c., and the market closes with buyers at 43s. 5½d. s.c. Scotch, whilst hematite and Middlesborough close respectively at 44s. 5½d. and 36s. 4½d.

Lead

has gradually eased off, business having taken place at lower prices than last week's close. To-night values are £9 17s. 6d, for soft foreign, and £10 for English.

Spelter

is a quiet market, but steady in tone. Values have become a shade easier, and close at £15 11s. 3d. ordinaries, and £15 13s. 9d. specials

Antimony

continues very steady at £32 to £33.

Quicksilver

is considerably firm, and the importers now ask £6 10s., whilst seconds are also dearer at £6 8s. 6d. to £6 9s.

The following are to-night's (August 31) prices of metals;—

	£	s.	d.		£	s.	d.
Copper.							
Tough cake and ingot	42	15	0	.....	43	2	6
Best selected	43	15	0	.....	43	17	6
Sheets and sheathing	—			.....	51	0	0
Flat bottoms	—			.....	54	0	0
Chili bars, spot, & 3 months respectively	40	3	9	.....	40	11	3
Good merchantable, spot, & 3 months respectively							
Copper tubes, seamless	—			.....	0	0	7½
Alloys.							
BRASS: Wire	—			.....	0	0	5¾
" Tubes (solid drawn)	—			.....	0	0	5⅝
" Sheets	—			.....	0	0	5¾
PHOSPHOR BRONZE: Alloys II.	—			.....	78	0	0
" " III. or V Cog Wheel Brand	—			.....	81	0	0
" " VII.	—			.....	83	0	0
" " XI.	—			.....	78	0	0
" " Vulcan brand A1	—			.....	72	0	0
DURO METAL	—			.....	73	0	0
BULL'S METAL	—			.....	65	0	0
Ferrobronze (Vivian's).							
Ingots per lb.	0	0	5¾	.....	—		
Ordinary sheets, plates, bolts and bars	0	0	6¼	.....	—		
Screw bolts and nuts	0	0	7½	.....	—		
Pump rods, plain	0	0	6¾	.....	—		
" finished	0	0	9¾	.....	—		
DELTA METAL: No. 4 (per ton)	—			.....	73	10	
" Sheets and plates (per lb.)	0	0	10½	.....	—		
" Bars, round, square, flat (per lb.)	0	0	9¼	.....	—		
" " hexagon (per lb.)	0	0	9	.....	—		
Tin.							
English, ingots, f.o.b.	71	10	0	.....	72	0	0
" bars	72	10	0	.....	73	0	0
" refined	73	10	0	.....	74	0	0
Straits, spot and 3 months respectively	71	5	0	.....	71	12	6
Australian spot, and three months respectively	74	15	0	.....	72	2	6
Banca " (in Holland)	74	15	0	.....	74	17	6
TIN PLATES: Charcoal, best quality per box	0	14	0	.....	0	15	0
" " ordinary	0	11	6	.....	0	12	6
" Coke, best quality	0	10	9	.....	0	11	0
" " ordinary	0	10	3	.....	0	10	6

These prices of tinplates are f.o.b. at Swansea: at Liverpool 6d. per box more.

Iron.							
Pig, G.M.B., f.o.b., Clyde, spot	—			.....	2	3	5½
" Scotch pig, No. 1 Gartsherrie	—			.....	nominal		
" " Coltness	—			.....	2	19	0
" " Clyde	—			.....	nominal		
" " Govan	—			.....	2	5	6
Bars, Welsh, f.o.b. Wales	—			.....	5	2	6
Plates " "	—			.....	6	0	0
Bars, Staffordshire, at works	—			.....	5	10	0
Sheets " "	—			.....	6	5	0
Plates " "	—			.....	6	5	0
Hoops " "	—			.....	5	12	6
Ship plates, Middlesborough	—			.....	4	15	0
STEEL: English spring according to quality	10	0	0	.....	12	0	0
" " cast	42	0	0	.....	55	0	0
" Rails at works, according to section	3	12	6	.....	4	15	0
Lead.							
Spanish or soft foreign	—			.....	9	17	6
English pig, common	—			.....	10	0	0
" L.B.	—			.....	10	10	0
" sheet and bar	—			.....	11	0	0
" pipe	—			.....	11	10	0
" red	—			.....	12	5	0
" white	—			.....	16	10	0
" patent shot	—			.....	14	10	0
Spelter.							
Silesian ordinary brands	—			.....	15	11	3
" special brands	—			.....	15	13	9
English Swansea	—			.....	16	5	0
Sheet Zinc	18	15	0	.....	19	0	0
Antimony.							
Antimony	31	0	0	.....	33	0	0
Quicksilver.							
Flasks, 75 lbs. warrants	6	8	0	.....	6	10	0
Manganese. per unit.							
Ore, c.i.f., U.K. ports	0	0	10½	.....	0	0	11
1st quality, 50 per cent. and upwards	0	0	9½	.....	0	0	10½
2nd " 47 per cent. to 50 per cent.	0	0	8	.....	0	0	10
3rd " 40 " 47 per cent.	**Aluminium.**					Per lb	
98–99½ per cent. (guaranteed 98 per cent. min.)	In ingots (1 cwt. lots)				0	1	9½
do do	(1 ton lots)			.....	0	1	9
Nickel.							
98–99 per cent. guaranteed	—			.....	—		

— A dividend of 3d. per share has been declared by the VICTORIA GOLD MINING ASSOCIATION, payable on September 7.

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver *R*, Ruby; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "called up" column of British Mines, signifies that the mine is conducted on "Cost Book" principles: † in the "Head Office" column of African Mines, signifies that the address given is not that of the head office, but of a sub- or transfer office and ‡, following the names of African mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct; we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name.	Closing Price, Aug. 31, 1894	Closing Price, Aug. 24, 1894.	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
			£ s.		£ s. d.			
Atlas .....*T*	—	—	1 0	—	1 0 0	12,000	Devon	Camborne.
Blue Hills .....*CT*	5/- 10/-	10/-	*	2/- May, '81	5 12 6	5,353	Cornwall	Camborne.
Botallack .. ..*T*	1 1⅛	1¼	*	—	51 4 6	1,880	Cornwall	St. Just.
Carn Brea .....*T*	8 8⅜	8⅛	*	2/6 Dec., '93	21 18 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen ..*T*	7/6 12/6	20/-	*	—	35 15 10	4,900	Cornwall	Camborne.
Cumberland .....*L*	—	—	1 0	5⅞ May, '88	1 0 0	51,988	Cumberland...	7, Angel-court E.C.
Derwentwatr.*CLZ*	—	—	1 0	—	1 0 0	10,(50	Cumberland..	Manchester.
Devon Gt Cons *CA*	22/6 27/6	27/6	5 0	3/- May, '94	2 0 0	10,240	Devon	8, Finsbury-circus.
Dolcoath .....*T*	69⅛ 70½	70	*	12/6 Apr. '94	9 12 6	4,700	Cornwall	Camborne.
Drakewalls *CTM*	-/3 -/6	-/6	0 5	—	0 2 0	61,856	Cornwall	Dashwood House.
East Grassington *L*	—	—	1 0	—	1 0 0	20,995	Yorkshire.....	5, Copthall-buildings
East Pool .....*AT*	9 9⅛	9	*	1/6 June,'94	0 9 9	8,400	Cornwall	Illogan.
Gawton .....*CA*	—	—	2 10	—	2 7 0	12,000	Devon	20, Great St. Helens.
Great Laxey.....*L*	1 2	2	4 0	5/- Apr., '92	4 0 0	15,000	Isle of Man	Douglas, Isl of Man.
Green Hurth ...*L*	1/3 1/9	1/9	1 0	-/6 June '89	0 19 0	32,000	Cumberland...	Newcastle.
Halkyn .....*L*	—	—	1 0	2/- June, '94	1 0 0	10,000	Flintshire.....	Chester.
Hexworthy .....*T*	—	—	1 0	—	1 0 0	14,634	Devon	6, Queen-street-place
Isle of Man .....*L*	—	—	5 0	5/6 Sep. '93	5 0 0	14,000	Isle of Man	Chester.
Killifreth .....*T*	2⅞ 3⅛	2⅝	*	2/- July,'94	5 11 6	6,000	Cornwall	Truro.
Leadhills .....*L*	17/6 22/6	23/-	6 0	3/- Sep. '82	6 0 0	20,000	Lanarkshire...	30, Finsbury-circus.
Levant .....*CT*	—	—	*	2/6 July, '94	11 9 6	2,500	Cornwall	Penzance.
Lovell .....*T*	—	—	*	1/3 Nov.,'91	1 16 7	7,165	Wendron	3, Gt. Queen-st., S.W.
Minera.....*L*	—	—	5 0	5/6 Mar. '90	5 0 0	9,000	Denbighshire.	Minera, N. Wales.
Northda Tndie.*LZ*	-/6 1/-	1/-	1 0	6⅞ Feb., '91	0 18 0	48,365	Northumberld	Newcastle-on-Tyne
New Balleswidd'n *T*	—	—	1 0	—	1 0 0	25,000	Cornwall	St. Clement's Ho., E.C
New Cooks Kitn. *TC*	—	—	*	—	10 18 3	4,900	Cornwall	Camborne.
New Minera	—	—	1 0	1/- Oct., '82	1 0 0	30,000	North Wales...	6 Queen-street-place,
Pedn-an-drea ...*T*	—	—	*	—	4 3 6	7,000	Cornwall	Redruth.
Phœnix United *TC*	1/- 3/-	3/-	*	1/- Mar. '90	7 4 6	10,666	Cornwall	Liskeard.
Polberro .....*T*	20/- 25/-	30/-	*	—	3 7 9	18,000	Cornwall	37, Walbrook.
So. Condurrow *TC*	10/- 15/-	15/-	*	3/6 Apr. '93	18 0 0	6,123	Cornwall	20, Great St. Helens
South Crofty *TA*	13⅛ 13⅝	13⅝	*	—	17 7 6	6,120	Cornwall	Pool, Cornwall.
S. Frances Untd. *T*	7/6 12/6	20/-	*	—	2 7 6	6,000	Cornwall	Redruth.
Tincroft .....*T*	12⅛ 12¾	12⅝	*	2/- Aug. '94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale .....*L*	7/-	7/-	4 0	1/3 Oct. '90	1 10 0	50,000	Durham.....	3, Lombard-court.
West Frances ...*T*	1½ 2	2	—	2/6 May, '89	16 0 7	6,144	Cornwall	Camborne.
West Kitty .. ...*T*	6¼ 7	6½	*	3/- Aug. '94	1 2 0	6,000	Cornwall	37, Walbrook.
Wheal Agar ..*TA*	2½ 3	2¾	*	2/6 Aug. '88	23 5 2	6,000	Cornwall	Redruth.
Wheal Basset ...*TC*	1 1¼	1¾	*	10/- Apr. '88	12 9 6	6,144	Cornwall	Redruth.
Wheal Friendly..*T*	-/6 1/-	1/-	*	—	0 12 9	10,000	Cornwall	110, Cannon-st., E.C.
Wheal Grenville *T*	18½ 19⅛	19⅛	*	5/- Aug. '94	18 8 0	6,000	Cornwall	7, Union-court, E.C.
Wheal Kitty.....*T*	12/6 17/6	15/-	*	3/- Mar. '88	4 5 6	8,590	Cornwall	Truro.
Wheal Metal &F. *T*	⅝ ¾	¾	*	—	0 13 9	10,784	Cornwall	14, Bread-street Av.

AUSTRALIAN AND NEW ZEALAND MINES.

Achilles Gld Fld.	2/6 3/6	3/6	1 0	—	1 0 0	80,307	New Zealand	3, Church Pas., E.C.
Aladdins Lamp *G*	13/9 16/3	15/-	1 0	1/- Apr. '94	1 0 0	100,000	N. S. Wales ...	4-6, Throg. Avenue.
Amana (Went.) *G*	—	—	1 0	—	1 0 0	75,000	N. S. Wales ...	5, Throg. Avenue.
Amana (Went.) *G*	—	—	1 0	—	0 12 6	25,000	N. S. Wales ...	5, Throg. Avenue.
Anglo-Saxon ...*G*	—	—	1 0	2/- July, '89	1 0 0	51,000	Queensland ..	4, Lombard-court.
Australasian ..... *G*	1/6 2/-	1/9	1 0	-/6 Mar., '92	1 0 0	210,000	Queensland ..	6, Queen-st. place
Australian .....*C*	— —	—	20 0	1/6 July '94	7 7 6	18,315	So. Australia	18, Old Jewry Chbrs,
Aus. Bro. Hill Con.	2/3 2/9	2/9	1 0	1/- June, '91	1 0 0	537,138	N. S. Wales ...	Winchester House.
Baker's Creek ...*G*	1⅝ 1⅜	1⅜	1 0	1/- July '94	0 17 6	103,000	N. S. Wales ...	Hillgrove, N.S.Wales
Bayley's Reward *G*	16/- 18/- xd	18/-	1 0	-/4 Aug. '94	1 0 0	480,000	W. Australia...	2, Met. Ex. Buildings
Blue Spur & G. *G.*	-/6 1/-	1/-	1 0	—	1 0 0	50,098	New Zealand	6, Gt. St. Helens'
Bonnie Dundee *G*	2/9 3/3	3/3	1 0	—	0 18 0	120,000	Queensland ..	3-5, Gracechurch-st
Do. Pref.	— —	—	1 0	2/- May, '94	1 0 0	7,288	Queensland ..	3-5, Gracechurch st.
Brilliant.....*G*	11/- 12/-	11/6	2 0	-/3 Aug. '94	2 0 0	250,000	Queensland ..	Charters Towers.
Brilliant Block...*G*	1⅝⅛ 1⅞	1¾	2 0	-/9 Aug. '94	2 0 0	250,000	Queensland ..	2, Gracechurch st.
Brilliant, St. Geo.	16/- 18/-	16/-	0 10	3d. Aug. 94	0 6 3	72,000	Queensland ...	Charters Towers.
Brit. Brok. Hill *S*	4/6 5/6	5/-	5 0	—	5 0 0	240,000	N. S. Wales ...	Dashwood Ho., E.C.
Broker Hill Prop.	3 3¼	3⅛	0 8	1/- Aug. '94	0 8 0	960,000	N. S. Wales ...	Dashwood Ho., E.C.
Brkn. Hill P. Bl.10	— —	—	10 0	1/- Feb. 94	9 13 0	107,000	N. S. Wales ...	117, Leadenhallst. EC.
Brkn. Hill P. Bl.14	—	—	5 0	—	5 0 0	10 ,000	N. S. Wales ...	117, Leadenhallst. EC.
Carrington.....*G*	-/9 1/3	1/2	12/6	—	0 12 6	100,007	Queensland ...	9, Tokenhouse Yard.
Craven's Cal. ... *G*	4/6 5/-	5/-	0 6	-/3 June '94	0 4 8	100,000	Queensland ..	30-1, S. Swithin's-le.
Croydon King B. *G*	— —	—	0 5	—	0 5 0	60,000	N. Queensland	Leadenhall Big. E.C.
Cumbrind (New)*G*	-/9 1/3	1/-	1 0	2/6 Dec., '87	1 0 0	184,690	Queensland ...	Blomfield House E.C
Day Dawn B.&W.*G*	6/- 7/-	7/-	1 0	-/6 Mar. 93	1 0 0	498,400	Queensland ...	3-5, Gracechurch-st.
Day Dawn P. C. *G*	3/6 4/-	4/-	1 0	-/6 Apr. '92	1 0 0	490,000	Queensland ...	Winchester Ho., E.C
Eaglehawk.....*G*	-/9 1/3 (19/3)	1/6	1 0	—	0 19 3	120,000	Victoria..... ...	31, Lombard-street.
Eng. & Aus. Con. *Cu*	1⅛	1⅛	2 0	2½ 1883	1 17 6	70,000	So. Australia	136, Palmerston-bldg
Eng. & Aus 6⅞ Deb.	—	—	50 0	6⅞ July, '94	50 0 0	700	So. Australia	136, Palmerston-bldg
Etheridge	—	—	0 5	—	0 5 0	324,890	Queensland ..	6-7, Queen-street-pl.
Frederick the Gt *G*	—	—	1 0	—	1 0 0	125,000	Victoria.....	St. George's House.
Glenrock .....*G*	1/3 1/9	1/9	1 0	—	0 19 6	225,000	N. Zealand ..	3-5, Queen-st. E.C.
Golden Gate..... *G*	1/3 1/9	1/9	0 10	—	0 10 0	150,000	Queensland..	9, Tokenhouse Yard.
Harrietville	— —	—	1 0	-/6 July, '90	1 0 0	146,330	Victoria.....	6-7, Queen-street-pl.
Kaboonga .....*G*	1/3 1/9	1/9	0 10	—	0 10 0	500,000	Queensland ..	70-71, Bishopsgate st.
Kangarilla .....*S*	2/3 2/9	3/-	1 0	—	1 0 0	88,275	So. Australia	68, Coleman-street.
Kapanga.....*G*	3/6 4/-	3/3	1 0	-/6 Jan. '91	0 19 0	250,000	N. Zealand ..	9, New Broad-street.
Kilkivan.....*G*	1/6 2/-	2/-	1 0	—	1 0 0	81,392	Queensland ..	4, Coleman-street.
Midas G. F. ..... *G*	— —	—	1 0	—	1 0 0	180,000	Victoria.....	32 Poultry, E.C.
Mills' Day Dawn*G*	1⅝⅛ 1⅞	1¾	1 0	-/6 July '94	0 15 9	300,000	Queensland ..	3, Gracechurch-st.
Moruya .....*GS*	— —	—	1 0	—	1 0 0	59,235	N. S. Wales ...	16, St. Helen's-place.
Mosman .....*G*	-/9 1/3	1/6	1 0	-/3 Jan., '94	1 0 0	185,000	Queensland ...	3-5, Gracechurch-st.
Mt. Leyshon .....*G*	-/6 1/-	1/-	1 0	-/6 Dec. '90	1 0 0	167,989	Queensland ...	7, Draper's-gardens.
Mountain Maid *G*	2/- 3/-	3/-	0 10	—	0 6 3	56,000	Queensland...	Leadenhall Bldgs.
Mount Morgan *G*	2¾ 2¼ xd	2¾ xd	1 0	-/6 Aug. '94	0 17 6	1,000,000	Queensland ...	50, Lime-street.
Mt. Shamrock *GR*	— —	—	1 0	—	1 0 0	275,000	Queensland ..	9, Tokenhouse-yard.
Mount Zeehan *St.*	-/6 1/-	1/-	1 0	—	1 0 0	193,257	Tasmania	Mansion Ho. Cham.
N. Smithfield ... *G*	— —	—	0 10	3/- July, '94	0 10 0	48,000	Gympie.....	Queensland.
New Queen ..... *G*	6/3 6/9	6/6	1 0	-/6 Apr., '94	0 19 6	158,915	Queensland ...	30, St. Swithin's-la.
No. 7 N. E. Queen	-/6 1/-	1/-	2 10	-/3 Sept, '92	0 8 9	96,000	Queensland ...	30, St. Swithin's-la.
Phœnix Gold. Pile *G*	— —	—	0 5	-/9 Aug. '94	0 5 0	48,000	Gympie.....	Gympie, Queensland
Port Phillip .....*G*	— —	—	0 5	—	0 5 0	200,000	Victoria	57, Moorgate-st., E.C.
Queen's Bthdy Un	— —	—	1 0	—	0 10 0	75,000	Victoria	7-8, Gt. Winchester St.
Queens. Smelting	¼ ⅜	⅜	—	—	1 0 0	36,244	Queensland ..	9, Tokenhouse Yard.
Scottish Australian	¾ 1	1	1 0	4-5d. May, '94	1 0 0	200,000	N.S. Wales ...	Winchester Ho. E.C.
Sunburst.....*G*	— —	—	0 10	-/6 Mar. '92	0 10 0	150,000	Queensland ...	9, Tokenhouse Yard.
Tasmanian Crown	— —	—	1 0	—	1 0 0	125,990	Tasmania	3, Old Jewry, E.C.
Tipperary .....*G*	— —	—	1 0	—	1 0 0	35,000	N. Zealand ...	3-5, Queen-st., E.C.
True Blue .....*G*	— —	—	1 0	-/3 July, '94	1 0 0	53,000	Australia	Leadenhall Big. E.C.
Victoria Associatn.	— —	—	1 0	-/3 Aug. '94	1 0 0	144,000	Char. Towers	6, Crosby-square
Victory.....*G*	6/- 8/-	6/-	0 5	-/6 Mar., '94	0 5 0	200,000	Queensland ...	32, Gresham-st., E.C
Waihi.....*G*	1¹³⁄₁₆ 1¹⁵⁄₁₆	1¹³⁄₁₆	1 0	1/- June '94	1 0 0	150,000	New Zealand	11, Abchurch-ln. E.C
Wentworth Gld. *G*	3/- 4/-	4/-	1 0	—	1 0 0	350,000	N. S. Wales ...	4-8, Throgmort. Av.
Went. Priority.. *G*	7/- 9/-	9/-	1 0	6/- Jan. '93	1 0 0	150,000	N. S. Wales ...	4-8, Throgmort. Av.
W. Argentine ... *G*	-/9 1/3	1/-	1 0	—	0 19 0	150,000	N. Zealand ...	3-5, Queen-street.
W. Australian G.F.	2 2¼	1¾	1 0	—	1 0 0	} 65,000	W. Australia...	28-29, S. Swithin's-ln.
W. Australian G.F.	11/3 15/3	15/3	1 0	—	0 10 0		W. Australia...	28-29, S. Swithin's-ln
Zeehan Montana *S*	— —	—	1 0	8d Aug., '94	1 0 0	66,700	Tasmania	11, Queen Victoria st
Zeehan Montana *S*	— —	—	1 0	5d Aug., '94	0 12 6	12,800	Tasmania	11, Queen Victoria st

EUROPEAN MINES.

Alamillos .....*L*	10 15	⅝	2 0	-/3 Sept. '92	2 0 0	35,000	Spain	6, Queen-street-place
Avala .....*Q*	0 ⅝	⅝	1 0	1/- May '93	1 0 0	160,247	Servia.....	4, Tokenho. Bldgs.
Consett Ore ..... *I*	5 5⅛ xd	5⅛ xd	1 0	5/- July '94	1 0 0	55,200	Spain	19, Grey-st., N'castle.
English Cr. Spelter	⅜ ⅝	⅝ xd	1 0	2½ % Aug. '94	1 0 0	84,000	Lombardy	9, Queen-street-place
Fortuna ..... *L*	12/6 17/6	17/6	2 0	-/6 Sept. '92	2 0 0	25,000	Spain	6, Queen-street-place
Libiola.....*C*	3⅝ 3¾	3⅝	5 0	2/6 Aug.	5 0 0	60,400	Italy	Dashwood Ho., E.C.
Linares .....*L*	3⅝ 3¾	3⅜	2 0	4/- May, '94	2 0 0	14,998	Spain	6, Queen-street-place
Marbella .....*I*	2⅝ 3	3	10 0	8/- Mar. '93	10 0 0	25,000	Spain	78, Queen Victoria-st.
Mason & Barry...*C*	2¾ 3	2¾	5 0	2/- May, '94	5 0 0	185,172	Portugal	87, Cannon-street.
Oscar .....*G*	— —	—	9 0	—	9 0 6	117,240	Norway	6a, Austin Friars.
Pestarena .....*G*	2/6 2/-	3/-	20 0	—	20 0 0	67,500	Italy	6-7, Queen-street-pl.
Pontgibaud.....*L*	— —	—	20 0	11/5 Dec. '93	20 0 0	14,000	France	6-7, Queen-street-pl.
Rio Tinto .....*C*	14⅞ 15	14⅝	10 0	2/- May, '94	10 0 0	326,000	Spain	30, St. Swithin's-lane
Do. (Mort. Bonds)	104 106	105	100 0	5⅞ July, '94	100 0 0	£1692,740	Spain	30, St. Swithin's-lane
Do. (2nd do.)	102 104	103	100 C	5⅞ July, '94	100 0 0	£1024,860	Spain	30, St. Swithin's-lane
Do. (3rd do.)	100 102	101	100 C	5 p.c. July, '94	100 0 0	£587,080	Spain	30, St. Swithin's lane
Sipanji .....*SQ*	10/- 12/-	12/-	1 0	—	0 19 0	96,000	Servia.....	120, Bishopsgt-st, Wn.
Tharsis.....*C Sul*	4⅜ 4⅝	4⅛	2 0	12½ % Mar. '94	2 0 0	630,000	Spain	Glasgow.
West Frus Pre. pref	— —	—	10 0	8% June '94	10 0 0	365	Germany	Walbrook Ho., E.C.
West Prussian Pre.	— —	—	10 0	8% June, '94	10 0 0	5,480	Germany	Walbrook Ho., E.C.
West Prussian Or.	— —	—	10 0	8% June, '94	10 0 0	14,050	Germany	Walbrook Ho., E.C.
Wohlfahrt .....*L*	— —	—	1 0	3% June, '94	1 0 0	99,634	Prussia	17, Victoria-st., S.W.
Wohlfahrt	— —	—	1 0	3% June, '94	0 19 0	9,090	Prussia	17, Victoria-st., S.W.

INDIAN AND ASIATIC MINES.

Name.	Closing Price, Aug. 31, 1894	Closing Price, Aug. 24, 1894.	Par.	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Asia Minor Pref. *St.*	— —	—	0 10	—	0 10 0	42,430	Asia Minor ...	2, Metal Ex. Bldgs.
Do. Ord. ...	— —	—	0 10	—	0 9 0	51,584	Asia Minor ...	2, Metal Ex. Bldgs.
Balaghat Mysore *G*	7/- 8/-	8/-	1 0	—	0 17 0	160,000	India	6-7, Queen-street-pl.
Burma Ruby.....*R*	3/- 4/-	4/6	1 0	—	0 17 0	300,000	Burmah	Suffolk House, E.C.
Champion Reef...*G*	3¹¹⁄₁₆ 3¹³⁄₁₆	3¾	1 0	2/- Aug. '94	1 0 0	200,000	India	6-7, Queen-street-pl.
Colar Central ...*G*	-/3 -/5	-/6	1 0	—	1 0 0	200,000	India	Dashwood Ho., E.C.
Coromandel..... *G*	1/- 2/-	2/-	1 0	—	0 12 6	95,000	India	6-7, Queen-st.-place.
Deva Nia Movar ...*G*	— —	—	1 0	—	1 0 0	200,000	India	34, Nicholas-lane.
Gemming & Mining	— —	—	2 0	—	1 7 6	19,594	Ceylon	183, Gresham House.
Gold Fids Mysore *G*	22/- 24/-	24/-	1 0	1/- July '93	1 0 0	220,000	India	6-7, Queen-street pl.
Gold Fids Siam *G*	— —	—	1 0	—	1 0 0	150,000	Siam	19, St. Swithin's-lane.
Hyderabad Dec....	— —	—	10 0	—	10 0 0	115,000	Deccan	16, St. Helen's-place.
Kempinkote GdFd	3/9 4/3	4/3	0 5	—	0 3 6	665,473	India	6-7, Queen-st.-place.
Mysore ..... *G*	2¹¹⁄₁₆ 2¹³⁄₁₆	2⅝	1 0	2/- July, '94	1 0 0	250,000	India	6-7, Queen-street pl.
My. Harnballi ...*G*	2/3 2/9	2/3	1 0	—	0 18 0	100,000	India	2, East India Avenue
Mysore Reefs ...*G*	10/- 11/-	12/-	1 0	—	0 19 6	134,788	India	6-7, Queen-street-pl.
Mysore West (N)*G*	8/6 9/6	10/-	1 0	—	0 18 0	127,408	India	Dashwood Ho., E.C.
Mysore Wynaad *G*	7/- 8/-	8/-	1 0	—	0 18 0	250,000	India	Dashwood Ho., E.C.
Nerbudda Coal &In	⅛ ¼	¼	3 0	—	2 11 0	49,839	India	213, Gresham House
Nine Reefs .....*G*	5/- 5/6	5/-	0 10	—	0 10 0	50,000	India	6-7, Queen-street-pl.
Nine Reefs	4/6 5/-	4/6	0 10	—	0 9 6	200,000	India	6-7, Queen-street-pl.
Nundydroog.....*G*	11¹⁄₁₆ 11³⁄₁₆	1¾	1 0	1/- Mar. '94	1 0 0	200,000	India	6-7, Queen-street-pl.
Ooregum (Dt.O.)*G*	3⅛ 3⅜	3¼	1 0	4/6 July, '94	1 0 0	145,000	India	6-7, Queen-street-pl.
Do. (10 % Pref.).	3⅜ 3⅞	3⅞	1 0	4/- July, '94	1 0 0	95,536	India	6-7, Queen-street-pl.
Do. (10 % Pref.).	3 3¼	3¼	1 0	4/- July '94	0 5 0	24,464	India	6-7, Queen-street-pl.
Panang Corpn. *T*	7/- 8/-	8/-	1 0	15% Apr. '89	1 0 0	203,070	Malay Penin.	Blomfield Ho., E.C.
Panang Kabang *T*	1⅛ 3⅛	3⅛	1 0	—	1 0 0	394,760	Malay Penin.	4a, Jeffrey's sq., E.C.
South E. Mysore *G*	4/3 4/9	5/-	0 4	—	0 3 9	134,623	India	6-7, Queen-street-pl.

NORTH AMERICAN MINES.

Alaska Mexican...*G*	— —	—	$5	—	$5	160,000	Alaska.....	30, St. Swithin's-ln.
Alaska Treadwell *G*	3⅝ 3⅞	3¹⁵⁄₁₆	825	1/6 July, '94	$25	200,000	Alaska...	30, St. Swithin's-ln.
Almada and T... *S*	3⅜ 3⅝	-/9	2/6	—	0 2 6	351,008	Mexico	6, Queen-street-place
American Belle...*S*	2/3 2/9	2/9	1 0	-/6 Mar. '91	1 0 0	398,890	Colorado	25A, Old Broad-street
Anglo Mexican ...*S*	— —	—	5 0	3/- Jan. '90	5 0 0	74,850	Mexico	23, College Hill.
Arizona (Pref.) Cu	9/- 9/6	9/9	4 0	—	4 0 0	158,920	Arizona	74, Geo.-st., Edinbor'
Do. 10 % Deben.	50	50	100 0	7% May '94	100 0 0	2,660	Arizona	74, Geo.-st., Edinbor'
Big Creek ..... *Ay.*	—	—	1 0	1/- Dec. '91	1 0 0	50,000	Nevada	2, Pancras-lane, E.C.
California ..... *G*	— —	—	0 10	-/6 May '90	0 8 9	129,571	Colorado	St. George's Ho. E.C.
Canadian Phos. *P*	— —	—	1 0	-/6 Nov.,'90	1 0 0	73,334	Canada	155, Fenchurch-st.
Colorado Boy.....*S*	— —	—	1 0	—	1 0 0	112,491	Colorado	Abchurch-chbrs. E.C
Cortez .....*S*	— —	—	1 0	3 % Feb. '93	1 0 0	300,000	Nevada	Suffolk House, E.C.
Decatur.....*St.*	— —	—	1 0	—	1 0 0	32,500	Colorado	35, Queen Victoria-st.
Do..... (Pref.)	— —	—	1 0	—	1 0 0	12,500	Colorado	35, Queen Victoria-st
De Lamar.....*GS*	— 19/-xd	19/-	1 0	1/- June '94	1 0 0	400,000	Idaho	6, Draper's-gardens.
Dickens Custer *GS*	17/6 18/6	—	1 0	—	0 19 9	420,000	Idaho	Winchester Ho. E.C.
Elkhorn .....*S*	14/- 15/-	14/-	1 0	-/9 July, '94	1 0 0	175,007	Montana	6, Draper's-gardens.
Emma .....*S*	-/2 -/4	-/4	0 5	—	0 5 0	403,618	Utah	15, Geo-st, Mansn. Ho
Flagstaff .....*S*	— —	—	1 0	—	0 18 3	240,000	Utah	Dashwood Ho., E.C.
Fisk..... *G*	— —	—	1 0	6d May, 94	1 0 0	134,000	Colorado	5, Fenchurch st.
Garfield ... ... *GS*	— —	—	1 0	-/6 Dec. '88	0 19 6	98,185	Nevada	Suffolk House, E.C.
Gen. Mining Assoc.	7 7½	7½	8 0	15/- Apr. '94	8 0 0	27,469	Nova Scotia...	Blomfield Ho., E.C.
Golden Feather *G*	7/6 8/6	8/-	1 0	—	1 0 0	180,000	California ...	8, Stephens Cs E.C.
Golden Gate ..... *G*	7/6 8/6	5/-	1 0	—	0 19 6	79,600	California ...	8, Stephens Cs E.C.
Golden Leaf..... *G*	2/- 2/6	2/-	1 0	—	1 0 0	300,259	Montana	8, Draper's Gardens.
Golden Valley...*G*	— —	—	1 0	—	1 0 0	55,507	Colorado	15, Angel Court.
Harquahala... *G*	6/- 7/- xd	7/-	1 0	-/9 June '94	1 0 0	300,000	Arizona	6, Draper's Gardens.
Holcomb Valley *G*	-/9 1/-	-/7½	0 5	—	0 5 0	540,000	California ...	14, Cornhill. E.C.
Idaho.....*GS*	1/9 2/3	1/5	1 0	—	0 4 8	143,439	Idaho	140, Leadenhall-st.
Jackson Goldfields	— —	—	5 0	—	0 5 0	408,635	California	11, Poultry, E.C.
Jay Hawk .....*G*	6/- 7/-	6/8	1 0	-/6 Dec. '92	1 0 0	285,000	Montana	Dashwood House,
Kohinoor "B"*GS*	— —	—	1 0	-/6 June.'81	1 0 0	112,901	Colorado	Blomfield Ho., E.C.
La Plata.....*S*	-/4½ -/7½	-/7½	0 5	1/3 Oct. '82	0 4 3	405,000	Colorado	11, Poultry, E.C.
Maid of Erin ...*S*	-/3 -/3	-/6	1 0	4c. pshMar.'94	1 0 0	575,000	Colorado	43, Threadneedle-st.
Mammoth Gold ...	— —	—	1 0	—	1 0 0	400,000	Pinal Arizona.	257, Winchester Ho.
Mesq. d'l Oro (P) *G*	— —	—	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C.
Mesq. d'l Oro (D) *G*	— —	—	5 0	—	5 0 0	10,000	Mexico	Dashwood Ho., E.C.
Montana ..... *GS*	14/6 15/6	14/6	1 0	5% April '91	0 19 0	657,158	Montana	Gresham House, E.C.
New Colorado ...*S*	— —	—	1 0	—	0 17 0	65,000	Colorado	Abchurch Cham. E.C
N. Consolidated *SC*	— —	—	0 5	—	0 3 6	248,576	Nevada	15, Angel-court, E.C.
N. Gold Hill.....*G*	-/2 -/4	-/4	1 0	—	0 19 9	191,045	N. Carolina ...	15, George-st., E.C.
New Guston .....*S*	13/9 16/3	16/3	1 0	1/- Oct. '92	1 0 0	110,000	Colorado	25A. Old Broad-st.
New Hoover Hill *G*	— —	—	0 10	-/9 Dec. '85	0 10 0	120,000	N. Carolina

"THE MINING JOURNAL" SHARE LIST—(Continued).

SOUTH AND CENTRAL AMERICAN MINES—(*Continued*).

Name.	Closing Price, Aug. 31, 1894	Closing Price, Aug. 24, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Santa Barbara ...G	—	—	0 10	1/3 Dec. '86	0 10 0	60,000	Brazil.....	Liverpool
Santa Elena .....N	1¼ 1⅝	1¼	5 0	5/- Nov. '93	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
Santa Rita .....N	4⅛ 4⅜	4	5 0	15% Apr., '94	5 0 0	20,000	Chili	DashwoodHouse,E.C
San Sebastian ...N	2⅜ 2¾	2¾	5 0	1/6 May '94	5 0 0	29,000	Chili	DashwoodHouse,E.C
Segovia .....G	— —	—	5 0	—	0 4 0	160,000	Colombia	5, Copthall-buildings
Sierre Pref.....G	— —	—	1 0	10% July '94	0 15 0	840	Colombia	23, St. Swithin's ln.
Sucre Ord.....G	— —	—	1 0	8% July '94	1 0 0	10,000	Colombia	23, St. Swithin's ln.
Tetuan .....G	— —	—	1 0	—	0 19 6	200,000	Colombia	5, Copthall-buildings
Tolima "A" .....S	9 9½	9	5 0	10% Aug. '94	5 0 0	14,000	Colombia	18, Finsbury-circus.
Do. "B" .....S	7¼ 7¾	7¾	5 0	10% Aug. '94	5 0 0	6,000	Colombia	18, Finsbury-circus.
Vic. & Altam.ra ...	— —	—	0 5	—	0 5 0	200,000	Venezuela ...	Broad-st. Avenue.
West Indian.....G	— —	—	0 5	—	0 5 0	700,000	San Domingo	49, Queen Victoria-st.
Zaruma .....G	— —	—	0 5	—	0 5 0	261,422	Ecuador..... ..	1, Gt. Winchester-st.

AFRICAN MINES.

Name.	Closing Price, Aug. 31, 1894	Closing Price, Aug. 24, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Africander..... G	1⅛ 1¼	1⅛	1 0	—	1 0 0	40,000	Transvaal	19, St. Swithin's-lane
Agnes Block..... G	9/- 11/-	11/-	1 0	—	1 0 0	78,507	Transvaal	54, Old Broad-street.
Appantoo..... G	— —	—	1 0	—	1 0 0	71,000	West Coast ...	9, New Broad-street.
Aurora ..... G	4/- 6/-	6/-	1 0	5% Mar, '93	1 0 0	65,000	Witwatersrd.	8, Old Jewry.
Aurora West..New G	5/- 7/-	7/-	1 0	5% Mar., '93	—	80,000	Witwatersrd.	1, Crosby Square.
Balkis Eersteling G	-/9 1/3	1/3	0 10	—	0 9 6	520,000	Transvaal	85, Gracechurch-st.
Balkis Land	1/6 2/-	2/-	0 10	—	0 10 0	520,000	Transvaal	85, Gracechurch-st.
Banket..... G	-/9 1/3	1/3	1 0	—	1 0 0	200,000	Witwatersrd.	Johannesburg.
Bantjes Reef .....G	13/6 14/6	15/-	1 0	—	1 0 0	83,000	Witwatersrd.	Warnford-court.
Barrett..... G	3/- 3/6	3/-	0 10	—	0 9 0	207,496	De Kaap	17, Basinghall-street
Bechuanaland Exp.	25/6 27/6	26/6	1 0	—	1 0 0	200,000	Bechuanaland	19, St. Swithin's-lane
Block "B" Lang.	7/- 8/-	6/6	1 0	—	1 0 0	535,000	Witwatersrd.	8, Princes-st., E.C.
Booysen Land ... G	6/- 8/-	8/-	1 0	—	0 11 0	95,000	Transvaal.....	8, Princes st., E.C.
Do. Pref.....	— —	—	1 0	8% Mar., 94	0 10 0	71,174	Transvaal.....	4 Tokenhouse-bldg.
Brit. S. A. Char. ...	35/6 36/6	35/-	1 0	—	1 0 0	2,000,000	S. Africa	19, St. Swithin's-lane
Buffelsdoorn ..... G	27/- 29/-	29/-	1 0	—	1 0 0	250,000	Potchefstroom	8, Old Jewry.
Buluwayo Synd. ...	⅞ 1¼pm	1¼pm	1 0	—	1 0 0	12,000	Matabeleland	10, Helen's Place.
Cape Copper C	1⅛ 1⅜	1⅛	2 0	1/3 June '94	2 0 0	300,000	Cape Colony..	9, Queen-street-place.
Do. 6 % Pref. G	1⅝ 2⅛	2	2 0	1/3 June '94	2 0 0	45,000	Cape Colony	9 Queen-street-place
Cen. Montrose... G	1/- 2/-	2/-	1 0	—	0 18 6	69,000	Transvaal	15, George st. Mn. Ho.
Champ d'Or..... G	2¼ 2⅝	2	1 0	—	1 0 0	116,016	Witwatersrd.	8, Old Jewry, E.C.
Champ d'Or Deep G	10/8 11/8	9/-	1 0	—	1 0 0	275,000	Witwatersrd.	Fox st., Johannesbrg
City and Suburb. G	14⅞ 15⅛	15⅛	1 0	25% Mar. '94	1 0 0	75,000	Witwatersrd.	1, Crosby Square.
Coetzeestroom ...G	2/- 2/-	2/-	0 5	—	0 5 0	140,000	De Kaap	105, Leadenhall-street
Con. Bultfontein D	28/6 29/6	27/-	1 0	5% Nov. '89	1 0 0	721,500	Griqualand W	62, Lombard-st.
Con. Deep Levels G	1⅛ 2¼	2	1 0	4/- June '94.	1 0 0	187,250	Transvaal	30, St. Swithin's-lane.
Con. G. Fields S A.	2⅝ 2⅞	2¾	1 0	10% Nov. '93	1 0 0	1,250,000	S. Africa	8, Old Jewry.
Do. 5½% Deben..	99⅛ 100⅝	100⅛	5 0	5½ July, '94	5 0 0	600,000	S. Africa	8, Old Jewry.
Crown Reef .....G	8¾ 8¾	8¾	1 0	25% May '94	1 0 0	120,000	Witwatersrd.	23, Austin Friars.
De Beers Consol. D	16¼ 16½	15⅝	5 0	12/6 June '94	5 0 0	789,791	Transvaal	62, Lombard-street.
Do. 5½% 1st Deb..	102 103	102½	100 0	5½% Feb. '94	5 0 0	£1,875000	Transvaal	62, Lombard-street.
Do. 5½% Bul. Ob.	103 104	103½	100 0	5½% Apr. '94	5 0 0	£720,100	Transvaal	62, Lombard-street.
Durban Roodept. G	5¾ 6	5⅛	1 0	3/- June '94	1 0 0	£125,000	Witwatersrd.	28, Leadenhall-bldgs.
East Rand ..... G	12/- 13/-	13/-	1 0	—	1 0 0	570,000	Witwatersrd.	170, Winchester-ho.
Evelyn .....G	— —	—	1 0	10% Jan. '89	1 0 0	66,000	Witwatersrd.	28, Old Jewry, E.C
Exploration 1	5/- 20/-pm	20/- pm	1 0	1/- Dec. '93	0 4 0	143,000	S. Africa	30, S. Swithin's-ln.
Exploring Co.	4¼ 5	4⅛	1 0	25/- Feb. '94	1 0 0	69,350	S. Africa	19, S. Swithin's-ln.
Ferreira ..... G	8¼ 8¼	8⅜	1 0	100% June '94	1 0 0	45,000	Witwatersrd.	29, Holborn Viaduct.
Forbes Reef (Nw) G	3/- 5/-	5/-	1 0	—	0 19 0	105,000	De Kaap	45-6, Leadenhall-st.
Geldenhuis Deep G	3⅞ 4⅛	4	1 0	—	1 0 0	265,000	Transvaal	30, St. Swithin's-lane.
Geldenhuis Est. G	5¾ 5⅞	5⅛	1 0	20% Mar. '94	1 0 0	187,500	Witwatersrd.	29 & 30, Hol. Viaduct.
Do. Main Reef	9/6 10/6	10/-	1 0	—	1 0 0	150,000	Witwatersrd.	Warnford-court, E.C.
George and May G	17/6 20/-	17/6	1 0	—	—	112,750	Witwatersrd.	Warnford Court, E.C.
George Goch ...G	— —	—	1 0	—	1 0 0	100,000	Witwatersrd.	Johannesburg.
Glencairn .....G	32/6 33/6	31/6	1 0	5 p c Aug. 94	1 0 0	200,000	Witwatersrd.	2, Drapers-gardens.
Gold Estates T....G	3/6 4/6	4/6	1 0	15% Dec. '89	0 10 0	130,000	Transvaal	46, Queen Victoria-st
Gld. Fls. Deep...G	1⅝ 1⅞	⅞	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G. F. of Mashonld.	11/3 13/9	12/6	1 0	—	1 0 0	200,000	Mashonaland	19, St. Swithin's ln.
G.F.Tierra d' Fuego	2/1½ 2/4½	2/4½	0 4	—	0 4 0	400,000	Mosambique..	2, Tokenhouse Bldgs.
Grahamstown .. G	8/- 9/-	8/6	1 0	—	1 0 0	150,000	Witwatersrd.	14, Throgmorton-st.
Graskop .....G	1/6 2/-	1/3	0 8	7½% Mar. '92.	0 5 0	600,000	Lydenburg ...	85, Gracechurch-st.
Griqualand W....D	6¾ 7	7	10 0	4% March '94	10 0 0	105,700	Transvaal	62, Lombard-street
Henry Nourse ...G	3⅜ 3⅝	3⅝	1 0	—	1 0 0	100,000	De Kaap	Warnford-court.
Heriot (New) ...G	5¾ 5⅞	5⅜	1 0	—	1 0 0	195,000	Witwatersrd.	1, Crosby Square.
Joe's Luck.....G	2/- 3/-	2/-	1 0	—	1 0 0	57,464	De Kaap	11, Queen Vic.-st.
Johannesburg Par	3⅝ 3¾	3⅝	1 0	12½% Nov., '93	1 0 0	21,000	Witwatersrd.	Johannesburg.
Jubilee .....G	5⅛ 5⅜ xd	5⅜	1 0	30% Aug. '94	1 0 0	30,000	Witwatersrd.	8, Old Jewry.
Jumpers .....G	4⅝ 4⅞	4⅝	1 0	30% June '94	1 0 0	100,000	Witwatersrd.	29, Holborn Viaduct.
Kimberley .....D	1/16 3/16 pm	3/16pm	1 0	—	0 10 0	98,672	Kimberley ...	19, Finsbury circus.
Kimberley Rdpt....	3/16 3/8	3/8	1 0	—	1 0 0	125,000	Kimberley ..	2, Drapers-gardens.
Kleinfontein (N) G	1 13/16 1 13/16	1 13/16	1 0	—	1 0 0	150,000	Witwatersrd.	8, Old Jewry.
Klerksdorp .... G	1/6 2/-	1/6	1 0	—	1 0 0	150,007	Transvaal	110, Cannon-street.
Koffyfontein.....D	15/- 17/6	17/6	1 0	—	0 5 0	50,000	Jacobsdaal ...	4, Bishopsgate street.

AFRICAN MINES—(*Continued*).

Name.	Closing Price, Aug. 31, 1894	Closing Price, Aug. 24, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Langlaagte Est. G	4¼ 4⅝	4¼	3 0	12½% June '94	1 0 0	467,000	Witwatersrd.	59, Holborn Viaduct.
Do. Royal	2¾ 2⅞	2¾	1 0	5% Sept. '93	1 0 0	100,000	Witwatersrd.	2, Drapers-gardens.
Lisbon-Berlyn .. G	2/6 3/-	2/6	2/6	—	0 2 6	883,233	Lydenburg ...	110, Cannon-street.
London & S. A. Ex.	— —	—	0 10	3/- June '94	0 10 0	100,000	S. Africa	19, Finsbury-circus.
Luipaards Vlei Est.	8/6 9/-	7/6	1 0	6% Mar, '90	1 0 0	319,003	Witwatersrd.	Warnford-court.
Do. do. do.	⅛ ¼	¼	1 0	—	0 10 0	25,000	Witwatersrd.	8, Old Jewry.
Main Reef (New) G	8/- 10/-	10/-	1 0	—	0 10 0	300,000	Witwatersrd.	8, Old Jewry.
May Consol. .....G	8/6 9/8	9/-	1 0	—	1 0 0	430,000	Witwatersrd.	4, Lothbury.
May Deep Level G	9/6 10/6	10/-	1 0	—	1 0 0	146,000	Witwatersrd.	33, Cornhill, E.C.
Mashon. Agency...	1/16 3/16pm	3/16 pm	1 0	—	0 10 0	100,000	Mashonaland	8, Old Jewry, E.C.
Mashon. Central...	— —	—	1 0	—	1 0 0	200,000	Mashonaland	8, Old Jewry, E.C.
Matabeleland	— —	—	12/6	—	0 12 6	79,889	Matabeleland	73, Basinghall St, E.C.
Metropolitan (N) G	13/2 16/3	15/-	1 0	—	1 0 0	75,000	Witwatersrd.	1, Crosby Square.
Meyer & Charl....G	5⅞ 6⅛	5¾	1 0	25% June '94	1 0 0	71,687	Witwatersrd.	Warnford-court.
Mines Trust	¾ ⅞	⅞	1 0	3% May '94	1 0 0	82,774	So. Africa	130, Winchester Ho.
Modderfontein.. G	1⅜ 1⅝	1⅝	1 0	—	1 0 0	200,000	Witwatersrd.	Warnford-court.
Montrose..... G	— —	—	1 0	3/- Feb. '90	1 0 0	70,000	De Kaap	65, New Broad-street
Moodies G.&E....G	8/- 9/-	8/-	1 0	-/4 May '90	1 0 0	240,000	De Kaap	8, Old Jewry.
Mozambique.	11/3 13/9	13/9	1 0	—	1 0 0	400,000	S. E. Africa ...	Broad-street House.
Namaqua C	17/6 20/-	20/-	2 0	2/6 July '91	2 0 0	194,351	Namaqualand.	34, Leadenhall-bldg.
New Black Reef ...	5/6 6/6	6/6	1 0	—	1 0 0	76,000	Witwatersrd.	9, King William st.
New Chimes..... G	1 15/16 2⅛	1⅞	1 0	10% June, '94	1 0 0	70,000	Witwatersrd.	8, Old Jewry, E.C.
New Clewer Estate	⅞ 1	1	1 0	—	1 0 0	100,000	Lydenburg ...	29-30, Holborn-viadt.
New Croesus..... G	1¾ 1⅜	1 1/16	1 0	5 % Aug. '92	1 0 0	195,000	Langlaagte ..	4, Bishopsgt.-st. Wt.
New Edwin Brav	— —	—	7 0	—	7 0 0	65,000	De Kaap	23, College Hill.
New Gordon..... D	2/- 3/-	4/8	1 0	5% Dec. '89	1 0 0	560,250	Griqualand ...	110, Cannon-street.
New Jagersf. ...D	13⅜ 13⅝	13¼	10 0	5% Mar., '94	10 0 0	100,000	Transvaal	5, Copthall-buildings
New LouisD'Or.. G	2/6 5/-	5/-	1 0	—	1 0 0	100,000	Witwatersrd.	53, New Broad-street
New Primrose ...G	4 4¼	4¼	1 0	20% July '94	1 0 0	230,000	Witwatersrd.	2, Draper's-gardens.
New RietfonteinG	1¾ 1⅝	22/6	1 0	—	1 0 0	160,000	Witwatersrd	Warnford-ct., E.C.
NewS.AugustineD	-/1½ -/1½	-/7½	1 0	—	0 19 0	234,583	Griqualand W	30-1, St. Swithin's-ln
New Spes Bona ...	5/- 7/-	6/-	1 0	—	1 0 0	113,801	Witwatersrd	24, N. John-st., Lpl.
N. Ophir Concess.	-/9 1/3	1/3	1 0	—	0 18 6	111,857	E. CoastAfrica	31, Lombard-street.
New Virginia ...G	3/9 4/3	4/3	0 10	—	0 10 0	48,335	Transvaal	26, Budge-row, E.C.
Nigel ..... G	2 15/16 3 1/16	2 15/16	1 0	15% June '94	1 0 0	160,000	Witwatersrd.	1, Crosby-square.
Nooitgedacht E. G	— —	—	1 0	—	1 0 0	160,000	Lydenburg ..	8, Old Jewry.
Oceana	1⅞ 2	2⅝	1 0	25/- Nov. '89	1 0 0	150,000	Transvaal	4, Sun Court, E.C.
Oceana Developmnt	⅛ dis par	⅛dispar	1 0	—	0 5 0	50,000	Transvaal	4 Sun Court, E.C.
Orange F.S.E. ...D	3¾ 4¼	3¾	1 0	12½ Mar, '94	1 0 0	284,000	OrangeF.State	10, Moorgate-street.
Orion..... G	— —	—	1 0	10% Aug. '94	1 0 0	30,000	Witwatersrd.	13, Basinghall-street
Otto's Kopje..... D	1/9 2/3	2/3	1 0	—	0 19 3	437,888	Kimberley ..	110, Cannon-st., E.C.
Paarl Central ... G	19/- 21/-	21/-	1 0	—	1 0 0	138,750	Transvaal	29-30, Hol. Via., E.C.
Paarl Ophir ..... G	— —	—	1 0	10p.c. Aug. '94	1 0 0	12,000	Tweefontein ...	Cape Town.
Pardy's Mozambq.	— —	—	0 10	10p.c. Apr. 94	0 10 0	13,000	S. E. Africa ..	Broad St. Avenue.
Piggs Peak, New G	1/6 2/6	2/6	1 0	—	0 16 6	230,326	Swaziland ..	6, Queen-street-place
Potchefstoom ... G	1/- 2/-	2/-	1 0	—	1 0 0	161,000	Potchefstroom	19, Bury-st., E.C.
Princess Estate G	18/9 21/3	21/3	1 0	—	1 0 0	72,046	Witwatersrd.	33, Cornhill, E.C.
Randfontein .....G	15/- 16/-	15/-	1 0	—	1 0 0	1,016,500	Witwatersrd.	59, Holborn Viaduct.
Rand Mines ..... G	9¼ 9⅝	8⅜	1 0	—	1 0 0	332,708	Witwatersrd.	29-30, Holborn Via.
Read's Drift ..... D	8/6 9/6	9/6	1 0	—	—	50,000	Transvaal	19, Finsbury circus.
Robinson ..... G	6⅜ 6⅝	6¼ xd	5 0	5% Aug. '94	5 0 0	543,750	Transvaal	55, Holborn Viaduct
Roodeseort Un. G	3 3½	3	1 0	10p.c. Aug. '94	1 0 0	100,000	Witwatersrd.	Warnford-court.
Salisbury New ...G	2⅜ 2⅝	2 5/16	0 10	—	0 10 0	93,000	Witwatersrd.	1, Crosby-square.
Sheba ..... G	28/6 29/6	29/6	1 0	1/- July, '94	1 0 0	514,450	Lydenburg ..	85, Gracechurch-st.
Silati ..... G	2/6 3/-	3/-	1 0	—	0 17 6	625,000	Zoutpansberg	4, Sun Court, E.C.
Simmer & Jack...G	7⅛ 7⅝	7⅝	1 0	10% May '94	1 0 0	65,000	Witwatersrd.	33, Cornhill.
S.A. Gold Trust ...	1 7/16 1 9/16	27/6	1 0	10% April '93	1 0 0	220,000	South Africa.	8, Old Jewry.
S.Simmer & Jack G	1 7/16 1 9/16	1 9/16	1 0	—	0 19 6	120,000	Witwatersrd	31, Lombard-st., E.C.
Spitzkop (New) G	10/6 11/6	10/6	1 0	—	0 19 6	99,070	Lydenburg ...	15, Bishopsgt-st, Wt.
Stanhope ..... G	2 2¼	2⅛	1 0	50% July. '94	—	34,000	Witwatersrd.	1, Crosby Square.
Sutherland R. ...G	4/3 4/9	4/9	1 0	—	0 18 6	220,000	Zoutpansberg	3, Budge-row, E.C.
Teutonia.....G	— —	—	1 0	—	1 0 0	96,000	Witwatersrd.	8, Old Jewry.
Thistle Reef ..... G	-/6 1/-	-/6	0 8	—	0 4 0	150,000	Emerton	15, Angel-court, E.C.
Trans. Coal Trust...	12/6 13/6	12/6	1 0	2½% May '94	1 0 0	439,965	Witwatersrd.	Broad-st. House, E.C
Trans. Est. & Dev.	8/6 9/6	9/6	1 0	—	1 0 0	285,700	Transvaal	76, Old Broad-st. E.C.
Trans. Gold .....G	2 5/16 2 5/16	2 5/16	1 0	1/- June '94	1 0 0	250,000	Transvaal	Suffolk House, E.C.
Trans. Land.....	5/3 5/9	5/9	1 0	—	1 0 0	79,915	Transvaal	Suffolk House, E.C.
Trans. Land.....	1/6 2/6	2/6	1 0	—	0 15 0	169,993	Transvaal	33, Cornhill.
Treasury.....G	— —	—	1 0	7½% May '94	1 0 0	26,000	Witwatersrd.	Johannesburg.
Turffontein Est. ...	— —	—	1 0	2½ Jan. '94	1 0 0	40,007	So. Africa	130, Winchester Ho.
Un. Ivy Reef.....G	13/9 16/3	16/3	1 0	2½ Jan. '94	1 0 0	45,000	Transvaal	110, Cannon-street
Un. Langlaagte G	10/- 12/6	12/6	1 0	—	1 0 0	100,000	Witwatersrd.	23, St. Swithin's-ln.
Van Ryn ..... G	1 5/16 1 9/16	1⅜	1 0	—	1 0 0	99,810	Witwatersrd.	1, Crosby-square.
Victory Hill .....G	— —	—	1 0	—	1 0 0	105,000	De Kaap	Portland House, E.C.
Village Main Reef	3⅞ 4⅛	4⅛	1 0	—	1 0 0	132,000	Witwatersrd.	8, Old Jewry.
Wassau .....G	— —	—	1 0	—	1 0 0	100,000	Gold Coast ...	147, Cannon-street.
Wemmer .....G	4⅛ 5	4⅞	1 0	10% Nov. '91	1 0 0	55,000	Witwatersrd.	19, Bury-street.
Witwatersrandt ...	23/6 24/6	23/-	1 0	—	1 0 0	250,000	Witwatersrd.	19, Bury-st., E.C.
Wolhuter .....G	2⅛ 3	3	1 0	—	1 0 0	120,000	Witwatersrd.	Warnford-court.
Wolverand.....G	⅝ ⅝	⅝	1 0	2/- Apr., '94	1 0 0	18,750	Transvaal.....	5, Copthall buildings
Wolverand.....G	— —	—	1 0	—	0 18 0	39,021	Transvaal	5, Copthall buildings
Worcester .....G	3 1/16 3 1/16	2⅞	1 0	20% Aug. '94	1 0 0	90,727	Witwatersrd.	8, Old Jewry.
Zambesia Explora.	2⅝ 2⅞	2¾	1 0	—	1 0 0	45,000	Transvaal	13, George-st., E.C.

BRITISH COAL AND IRON COMPANIES.

Name.	Closing Price, Aug. 31, 1894	Closing Price, Aug. 24, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Albion Steam	11¾ 11¾	11¾	10 0	10 p c Feb. 94	10 0 0	22,000	Pontypridd ..	6, Crosby-sq., E.C.
Andrew Knowles...	11½ 12	12	50 0	14s Mar. 94	35 0 0	24,400	Pendlebury ...	Pendlebury, nr Man.
Do do	27 31	31	50 0	7/6 July 94	50 0 0	600	Pendlebury ...	Pendlebury, nr Man.
Do Mort. Debts.	101 103	103	100 0	5 p c July 94	100 0 0	£125,000	Pendlebury .	Pendlebury, nr Man.
Arniston	25¼	25¾	10 0	25s May 94	8 0 0	6,500	Arniston	10, S. Andw-sq Edin.
Barrow Hem. Ord.	1¾ 2¾	2¼	7 10	...	7 10 0	150,000	Barrow-in-Fur	10, S. Swithin's-lane
Do 6 p.c. Pref. ..	4¾ 5¾	5¼	7 10	...	7 10 0	50,000	Barrow-in-Fur	10, S. Swithin's-lane
Bolckow Vaughan	11¾ 12¾	11¾	20 0	10s Mar. 94	20 0 0	81,488	York&Durhm.	16, Philpot-lane.
Do do	6 6¼	6¼	20 0	6s Mar. 94	12 0 0	93,045	York&Durhm.	16, Philpot-lane.
Do 5 p c. Pref.	21¼ xd	21¼	20 0	5 p c Feb. 94	20 0 0	23,604	York&Durhm.	16, Philpot-lane.
Cairntable	8 8¼	8½	10 0	10 p c Dec. 93	10 0 0	6,038	Scotland	103, Welling-st, Glas
Calderbank Steel&c	2 2½	2½	10 0	2½ Oct. 91	10 0 0	15,000	Near Glasgow	63, Vincent-st., Glas
Do 6 p c Pref....	7¼ 7¾	7¾	10 0	6 p c Oct. 91	10 0 0	1,000	Near Glasgow	63, Vincent st., Glas
Consett Iron.....	20¾ 21¾	21¾ xd	10 0	9s July, 94	7 10 0	100,000	Durham	Consett, Co. Durham
Do 8 p. c. Pref.	10 10¾	10¾ xd	5 0	4s July, 94	5 0 0	100,000	Durham	Consett, Co. Durham
Cowdenbeath	14 14¾	14½	10 0	15 p c Aug. 94	8 10 0	15,000	Fife.....	Cowdenbeath, Fife...
Do 5 p. c. Pref.	10¾ 10⅞	10¾	10 0	5 p c Feb. 94	10 0 0	10,000	Fife..... ..	Cowdenbeath, Fife
D. Davis and Sons	12¾ 13¼	13	10 0	10 p c Aug. 94	10 0 0	45,000	Rhondda	138, Leadenhall-st.
Ebbw Vale.....	8½ 9	8¼	23 0	10s June 94	20 0 0	69,754	South Wales..	122, Cannon-street
Do do	10 10¼	10	23 0	10s June 94	23 0 0	4,721	South Wales..	122, Cannon-street
Fife Coal	29½ 29¾	29⅞	10 0	3 p c Aug. 94	9 0 0	12,000	Fife.....	Leven, Fifeshire.
Granville	... ...	...	30 0	...	30 0 0	1,400	Swadlincote..	Swadlincote,
Great Western (A)	4½ 5	8½ xd	5 0	6 p c Mar. 94	5 0 0	10,000	Pontypridd ...	35, W. Bute-st., Cdff
Do do (B)	8¼ 8¾ xd	4¾	5 8	10 p c June 94	5 0 0	50,000	Pontypridd ...	35, W. Bute-st., Cdff
Great Wyrley	...	120	100 0	...	100 0 0	600	Great Wyrley	Gt. Wyrley, Walsall
Hamstead	20½	20¼	20 0	...	20 0 0	5,000	Great Barr ...	Gt. Barr, nr. Birm.
Henry Briggs (A)	12⅞ 13¼	13	15 0	18/9 Aug. 94	12 10 0	12,965	Normanton ...	Whitwood, Yorks.
Do do (B)	9¼ 9½	9½	15 0	12/9 Aug. 94	8 10 0	11,405	Normanton ...	Whitwood, Yorks.
International	3½ 3¾	3½	5 0	...	5 0 0	13,320	Glamorganshi	59, Mt. Strt.-sq., Cdff
J. Brown & Co. ...	14½ 15¾	15	20 0	7/6 July 94	15 0 0	58,700	Yorkshire	17, Fnchch-st., EC
Do 5 p c Pref....	11 11¾	11¾	10 0	5 p c June, 94	10 0 0	18,000	Yorkshire	17, Fnchch st., EC
John Watson	12¾ 12¾	12½	10 0	12s May, 94	8 10 0	13,333	Lana k&Stirlg	73, Vincent-st., Glas
Do 6 p. c. Pref.	12½	12½	10 0	...	10 0 0	6,666	Lanark&Stirlg	123, Vincent-st., Glas
Lofthouse	8¾ 8¾	8½	4 0	...	3 0 0	18,658	Lofthouse	Lofthouse, Yorks
Lothian Pref.	7	7	10 0	2½ p c May 94	10 0 0	12,500	Scotland	Newbattle Col., Dalk.
Do Ordinary ...	...	...	10 0	...	10 0 0	22,100	Scotland	NewbattleCol., Dalk.
Main Colliery	...	...	10 0	5 p. c. July 94	10 0 0	10,000	Glamorgan ...	Balwin-st., Bristol
Merry Cunningn.	...	...	10 0	...	10 0 0	12,500	Lanark&Renw	127, Vincent-st., Glas
Do 7 p. c. Pref.	10¾	10¾	10 0	7 p c May, 94	10 0 0	£150,000	Lanark&Renw	127, Vincent-st., Glas
Do 5 p.c. Debs.	105	105	100 0	5 p c May, 94	10 0 0	11,548	Lanark&Renw	127, Vincent-st., Glas

Name.	Closing Price, Aug. 31, 1894	Closing Price, Aug. 24, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Newport Abercarn	12⅛ 13⅛	7⅛	10 0	3 p.c., July, 94	10 0 0	15,000	South Wales..	12, Mary Axe
Do Preference	6⅛ 7 xd	8⅛ xd	10 0	6 p.c., July, 94	10 0 0	7,500	South Wales ..	12, Mary Axe
N. Shariston Pref.	8⅛ 9 xd	13⅝	20 0	10s. July, 94	20 0 0	7,500	Yorkshire	110, Cannon-st., E.C.
Newton Chambers,	...	19¼	20 0	...	20 0 0	7,975	Near Sheffield	Thorncliff Ironworks
Do 6 p.c. Pref.	...	21	20 0	...	20 0 0	7,348	Near Sheffield	Thorncliff Ironworks
Niddrie & Benhar

R. SCHRAM AND CO.—Amongst the numerous orders for rock boring and air compressing machinery which this firm have recently executed, is one for two complete tunnelling plants to be supplied to the Assam-Bengal Railway Company. It consists of four of the firm's well known Class B type air compressors, provided with R. Schram's inlet and outlet valves, four boilers, and 16 of their improved rock boring machines, fitted up with all recent improvements, together with carriage supports and all the necessary accessories for driving the advance heading, and afterwards for the opening out of the same. The plants are exactly similar to those supplied to the Indian Government in 1888 for constructing the Khojak tunnel, on the Chaman Extension Railway in Central Asia. In consequence of the altered conditions under which this class of machinery is now being worked, the firm have brought out an entirely new pattern rock drill, considerably strengthened in all working parts, so as to stand a working pressure up to 100 lbs. to the square inch, if necessary. These new machines are fitted up with the latest improvements suggested by the long practical experience acquired with this class of machinery.

AMERICAN DEVELOPING AND MINING COMPANY.—At this company's gold properties at Gibbonsville, Idaho, the installation of machinery preliminary to rapid development is proceeding steadily, and but for the strike would have been in operation at this time. An Ingersoll-Sargeant air-compressor, run by a Pelton waterwheel under 110 feet head, will be used, and an extensive system of pipe-lines has been put in to provide for the economical running of the drills. The deep tunnel, 1590 feet long, has been relaid with steel rails, and is in excellent condition for cheaply handling the material extracted. The ores in this property carry almost their entire value in gold, only about $1 in $1000 of bullion being silver. Near Whitehall this company is developing another group of mines adjoining the Golden Sunlight, and a deep tunnel is being driven to cut the vein 350 feet from the surface and has now attained a length of 450 feet. A strongly-mineralised zone is now being cut, showing native copper in plates in the cleavage planes of the slates, and it is expected that the vein will be reached in about two months.—*Daily Inter-Mountain.*

REPORTS FROM THE MINES.

We find it necessary to announce that, owing to the vast numbers of mine, reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issue in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to let their reports, etc., reach us early on Fridays, when it is not possible to let us have them earlier in the week, their doing so would go far to ensure their insertion, and to promote the completeness of our Mining Intelligence.

BRITISH MINES.

DEVON GREAT CONSOLS.—August 30: Watson's engine shaft. In the 172 fathom level east the lode is 4 feet wide yielding 1 ton of copper and mundic ores per fathom. In the 160 fathom level east the lode is 3½ feet wide consisting of capel, quartz, and a small quantity of mundic. In Harvey's winze below the 160 the lode is 4 feet wide, yielding 3 tons of copper and mundic ores per fathom. In the 148 fathom level east the lode is 4 feet wide, yielding 2 tons of copper and mundic ores per fathom. There is no other alteration in any of the other operations. The stopes throughout the mines are turning out well, and all the works are proceeding satisfactorily.—(Signed) William Clemo.

GREEN HURTH.—August 24: South-west branch vein. At the south forehead the vein has narrowed and is not so rich for lead as last reported, worth 1½ ton per fathom.—West crosscut south of Swan's shaft. By this crosscut we have cut ore to-day but is not sufficiently opened out to prove its value. It appears at present to be a rib about 6 inches wide.—Annie's vein. The south forehead is poorer than usual, worth 1 ton per fathom. The stope behind the forehead is looking well and is bearing better in the roof, worth 4 tons per fathom.—W. Gray.

LEADHILLS.—W. H. Paull, August 27: Brown's vein. The 160 fathom level south of Jeffrey's shaft is now advanced 41 fathoms 5 feet 9 inches; let to 11 men at 100s. per fathom. The vein here has a decided improvement in character, contains nice spar and a small branch of lead ore, with every appearance of improving, and water issued from the forebreast. The 160 fathom level north of Wilson's shaft let to seven men at 100s. per fathom, is extended 62 fathoms; vein in forebreast harder, but chiefly composed of stone and a little quartz. The winze below the 145 south of Wilson's shaft down 1 fathom 2 feet 9 inches, is somewhat contracted, and yields but little ore at present; set to four men at 85s. per fathom. No. 1 stope over this level 145 north of Jeffrey's shaft is set to two men at 27s. 6d. per fathom; vein therein 3 feet wide, worth 25 cwts. of ore per fathom. No. 2 stope over ditto north, set to four men at 25s. per fathom, will produce 30 cwts. of ore per fathom. The 115 fathom level is set to drive north of Jeffrey's shaft by three men at 87s. 6d. per fathom; vein 4 feet wide, showing good patches of ore, and likely to improve. This end is now extended 127 fathoms north of said shaft. No. 1 stope above the 115 north, set to two men at 37s. 6d. per fathom, will yield 35 cwts. of ore per fathom. The 100 fathom level is driven 151 fathoms 3 feet 6 inches south of Wilson's shaft, and set to four men at 65s. per fathom; vein 4 feet wide, composed mostly of stone and spar, ground harder. The crosscut east towards Raik vein at the 100 fathom level south of Wilson's shaft is extended 19 fathoms 2 feet 9 inches, and set to seven men at 120s. per fathom, ground continuing much of the same character. The crosscut westwards at the 100 fathom level north of Wilson's shaft is driven 5 fathoms 1 foot, and set to four men at 100s. per fathom. Here we have met with several joints containing spar, &c., but nothing of moment, and to properly prove this ground we purpose extending the crosscut a few feet further. No. 1 stope above drift over the 100 south of Wilson's shaft set to two men at 27s. 6d. per fathom is yielding 50 cwts. of ore per fathom. No. 2 stope over ditto set to four men at 27s. 6d. per fathom, vein 4 feet wide, worth 70 cwts. of ore per fathom. The stope over the 85 south of Wilson's shaft set to four men at 32s. 6d. per fathom, is worth 90 cwts. of ore per fathom. The stope below the 70, south of Wilson's shaft set to four men at 32s. 6d. per fathom, will produce 30 cwts. of ore per fathom. The stope above the 50 south of flat rod shaft set to four men at 27s. 6d. per fathom is in a vein 4 feet wide, yielding 70 cwts. of ore per fathom. The stope below the 35 south of flat rod shaft, set to four men at 37s. 6d. per fathom, is worth 55 cwts. of ore per fathom. Gripp's adit level is set to drive south on Sarrowcole vein by three men at 82s. 6d. per fathom. The vein here continues of a most promising character, contains barytes, with nice spar, showing occasional spots of lead ore and water oozing from the forebreast.

WHEAL FRIENDLY.—Nicholas Vivian, August 28: The Pink lode in the 10 fathom level east is of the same size and promising character as when I last reported on it—namely, 5 feet wide, and producing 48 lbs. of tin to the ton of stuff. The rise west of the cross course has been put up 9 fathoms. We are now driving an intermediate end east of rise, where the lode is 4 feet wide, and producing 40 lbs. of tin to the ton. Tinstone is being taken away as rapidly as possible, so that the stamps may be kept running whilst we are cutting down the shaft.

WEARDALE LEAD.—Report on Weardale Company's mines for week ending August 25: Groverake. Adamson's drift west vein 3 feet wide of spar, improved, worth 18 cwts. per fathom. Loop level to take water from rake level, strong sparry vein, a little more ore, but no lead to value.—Firestone drift west, sparry vein, poor in ore, worth 8 cwts. per fathom. Groverake cubic fathom stopes worth 14, 16, 14, 14, 14, 14, and 12 cwts. per fathom.—Groverake tribute. Ore for the week, 20 bings.—Boltsburn. Stope above Watt's level in vein worth 12 cwts. per fathom. Stope in north Flatt worth 14 cwts. per fathom. Stopes in south flat worth 20, 36, 16, 40, 32, 20, 20, 20, 16, and 20 cwts. per fathom.—Greenlaw's. Nattrass Gill drift stopes worth 18, 15, 18, and 14 cwts. per fathom.—Lowe's drift. Walton's rise in scar limestone continues hard and nipped. The stope in Lee's sump continues a strong sparry vein going down, well mixed with ore, worth 28 cwts. per fathom.—Greenlaw's. Tribute ore for the week 25 bings.—Sedling. Driving 64 level east in slatey hazel, vein 3 feet wide of spar and rider, worth 14 cwts. per fathom. Stopes above 64 level east worth 14, 16, 16, and 18 cwts. per fathom. Stope above 64 level west worth 18 cwts. per fathom. The sinking below the 74 level in scar lime is down 3 feet in hard ground. The crosscut north in the scar limestone has cut through a vein about 3 feet wide of good fluor spar and rider mixed with ore. South vein, Stobb's drift east, vein worth 12 cwts. per fathom. Ore raised for week 56 tons, ore dressed for week 67 tons, ore, slag, and fume smelted for the week 127 tons, producing 66 tons of pig lead.

POLBERRO.—We are continuing to make very satisfactory progress in sinking and rising against Trevaunance shaft, and expect to communicate both sections of this work in about three weeks. The 26 east on Pink lode is improved. The lode here is now 4 feet wide and produces 40 lbs. tin to the ton of stuff. The 26 east on South House lode yields 40 lbs. tin per ton. There is no change in any other part of the mine since the last report.—(Signed) Charles Thomas, John Harper.

COLONIAL, INDIAN, AND FOREIGN MINES.

DE LAMAR.—Copy of Captain J. W. Plummer's monthly report, for July: Mining. Ore breaking department. 77 feet vein, above the 7th level, average width of vein 6 feet 9 inches, assaying $16 in gold and $9·50 in silver, equals $25·50 per ton. 77 feet vein above the 8th level west intermediate, average width of vein 4 feet 3 inches, assaying $24·50 in gold $5·50 in silver, equals $30 per ton. 77 feet vein above the 8th level east, average width of vein 2 feet 3 inches, assaying $4·50 in gold, and $33·75 in silver, equals $38·25 per ton. 77 feet vein above the 9th level east intermediate, average width of vein 10 feet, assaying $12 in gold and $8 in silver, equal $20 per ton. At the present writing it has improved very materially. 77 feet vein above the 9th level west intermediate, average width of vein 4 feet, assaying $10 in gold and $5 in silver, equals $25 per ton. No. 5 vein above the 6th level, average width of vein 3 feet 10 inches, assaying $26 in gold and $1·50 in silver, equals $27·50 per ton. No. 5 vein above the 6th level hanging wall section, average width of vein 4 feet 6 inches, assaying $36·50 in gold and $2·80 in silver, equals $39·30 per ton. No. 5 vein above the 8th level west average width of vein 4 feet 4 inches, assaying $23 in gold and $3 in silver, equals $26 per ton. No. 5 vein above the 9th level west average width of vein 4 feet 4 inches, assaying $14 in gold and $3 in silver, equals $17 per ton. This stope is approaching the westerly flank of the ore body. No. 6 vein above the 9th level, average width of vein 2 feet 10 inches, assaying $28·75 gold and $5·75 in silver, equals $34·50 per ton. No. 7 vein above the 7th level, average width of vein 5 feet 4 inches, assaying $21·50 in gold and $2.25 in silver, equals $23·75 per ton. No. 7 vein above the 8th level, average width of vein 3 feet 2 inches, assaying $32 in gold, equals $32 per ton. No. 7 vein above the 9th level, average width of vein 3 feet 4 inches, assaying $33 in gold and $11 in silver, equals $44 per ton. No. 8 vein above the 8th level, average width of vein 2 feet, assaying $27 in gold and $2 in silver, equals $29 per ton. No. 9 vein above the 7th level, average width 5 feet 3 inches, assaying $24·50 in gold and $4·25 in silver, equals $28·75 per ton. No. 9 vein above the 8th level, average width 7 feet 6 inches, assaying $22·70 in gold and $2·60 in silver, equals $25·30 per ton. No. 9 vein above the 9th level, average width 3 feet, assaying $35 in gold and $5·25 in silver, equals $40·25 per ton.—Prospecting department, 77 feet vein 9th level east hanging wall branch. Reported length last month 134 feet, advanced July, 30 feet; total length, 164 feet. The branch has averaged 2 feet wide, assaying $22 in gold and $17 in silver, equals $39 per ton.—No. 5 vein 10th level east. Length reported 78 feet; advanced for July, 48 feet; total length 126 feet. During the month the vein became split into two branches, and showing other signs of local disturbance. These branches are again united. The width of the vein is 3 feet; the grade of the ore at present is low.—No. 7 vein 7th level west. Reported length, 141 feet 6 inches; advanced for July, 4 feet 6 inches; total length, 146 feet. The vein averages 5 feet wide, assaying $28·50 in gold and $1 in silver, equals $29 50 per ton. The level was suspended temporarily during the month to allow the sinking of a prospecting winze near its face. When this was completed the level was resumed.—No. 7 vein winze below 7th level. This winze is 35 feet deep, showing fair grade ore for all the distance.—No. 7 vein 8th level west. This level was suspended about 18 months ago, but was resumed during the past month. It has been advanced 32 feet. The first 10 feet showed low grade ore, which gradually improved in quality. The average width of the vein is 3 feet, assaying $21·25 gold and $5 silver, equals $26·25 per ton.—No. 9 vein 7th level west. Reported length, 245 feet 3 inches; advanced for the month, 26 feet; total length, 271 feet 3 inches. The vein averages 3 feet 10 inches wide, assaying $32·75 in gold and $2 in silver, equals $34·75 per ton.—No. 9 vein 8th level west. Reported length, 397 feet 9 inches; advanced for the month, 22 feet 6 inches; total length, 420 feet 3 inches. The average width of the vein is 4 feet 2 inches, assaying $15·75 in gold and $2 in silver equals $17·75 per ton. The value of the vein has fallen off during the month, but, considering the great length of the ore shoot, it is not unexpected.—No. 9 vein, 9th level west. Reported length 256 feet 9 inches, advanced for the month 17 feet, total length 273 feet 9 inches. The branch of the vein on which the month's work has been performed measures 2 feet wide, assaying as an average for the month $21 in gold and $3 in silver. At present the grade of the ore is lower.—No. 9 vein, raise above 10th level. This raise was completed to the 8th level. Total height 61 feet 6 inches. The vein averages 3 feet wide, assaying $23·50 in gold and $3 in silver, equals $26·50 per ton.—No. 9 vein, 10th level west. Reported length 62 feet, advanced for July 36 feet, total length 98 feet. The vein is 5 feet wide, assaying $16·20 in gold and $3 in silver, equals $19·20 per ton.—No. 9 vein, 10th level east. The full length of this level is 53 feet 3 inches. It reached the eastern extremity of the ore shoot, and was discontinued.—Anchor vein, 4th level west. The work performed here amounts to 23 feet of driving. The vein has increased in value since the level was commenced. It is 1 foot 6 inches wide, and assays from $15 to $18 per ton, the gold predominating—Sommercamp group. The work performed here consists of a crosscut and a drift and a raise. The crosscut has been driven steadily during the month, and levels have been driven east and west on No. 1 vein and a raise extended on it. It looks as if the crosscut had intersected it at too shallow a depth, the widest part of the vein being below the level of the crosscut. The value of the ore is $27, chiefly gold.—Milling department. The record of the months work shows steadiness and regularity. The mill was shut down on the 4th July and a part of the 5th.—Table of work performed for July, 1894. Number of wet tons crushed 3715·66 tons, number of dry tons crushed 3337·50tons, assay value of the pulp $26·72, gold $22·08, silver $4·64, assay value of the tailings $5·02, gold $4·43, silver $0·59, percentage saved (total) 81·22 per cent., number of Doré bars produced 21 bars, number of ounces pure gold produced 2,739·036 ounces, number of ounces fine silver produced 26,172·69 ounces, value of gold produced $54,780·72, value of silver produced $15,703·60, $70,484·32, ore shipped during the month $5500, surplus on sales of bullion $1288·92, miscellaneous revenue $821·40, $78,094·64, deduct all expenses for the month $34,499·85, estimated profit for month (or at $4·90 to £ sterling, £8896) $43,594·79.—Pelton wheel. The wheel performed valuable services during the month in the way of saving fuel. Unfortunately the extreme and unexpected hot weather, which came about the latter part of the month, materially reduced our supply. The contract has been let for the new hotel, and the contractor is making fair headway with his work. The Louise creek is also receiving the best attention, and good progress is being made.

HARQUAHALA.—Copy of Mr. T. Allen's report for the month of July: Mining department, ore breaking. Discovery vein above 1st level south. The mill has received 14 tons daily from this section. Its average assay value has been $11·50 per ton in gold.—Discovery vein above 2nd level north. The daily extraction from this stope has been 12 tons sent to the mill, its assay value being $12 per ton in gold.—Discovery vein, above 3rd level, north and south. This section has been supplying the mill with 13 tons daily, with an assay value of $11 per ton in gold.—Discovery vein above sixth level south. No. 1 stope. The vein here is 6 feet wide, assaying $11 per ton in gold.—No. 2 stope. The vein is 5 feet wide, assaying $12 per ton in gold. The stopes in this section contain a good deal of copper in the ore, which has had a detrimental effect in milling. The copper is in small flakes and amalgamates with the gold, and has brought down the fineness of the gold in bullion.—Iron vein above 5th level. North section. The vein here is 3 feet wide, assaying $9·50 per ton in gold.—Iron vein above 6th level south. The width of the vein is 2½ feet, with an assay value of $7 per ton in gold.—Golden Eagle Group, 1st level. The vein in this stope is 3 feet wide, assaying $12·50 per ton in gold.—Golden Eagle Group, above main tunnel. The vein is 3 feet wide, and assays $13 per ton in gold.—Prospecting department. Iron vein, 6th level south. This drift has been advanced 35 feet during the month. The face is in contact between porphyry for a footwall, with shale porphyry as a hanging wall.—No. 1 crosscut, 7th level. This crosscut has been advanced 38 feet. We have passed through the porphyry, cut the iron vein, and entered quartzite. The filling of the vein at its point of intersection is soft porphyry. We are drifting north east on this contact.—Iron vein north, 7th level. We have commenced drifting on the contact above referred to, and advanced 60 feet on its course. The filling continues to be the same as at the point of intersection.—No. 1 raise, 7th level. 50 feet west from the 7th level station a raise was put up to connect with the iron vein. The raise broke into the level above, intersecting the iron vein at that point. A portion of this raise passed through quartzite, assaying $3 per ton in gold.—No. 2 raise, 7th level. 35 feet west from No. 1 raise—not having intersected the iron vein at 90 feet in—another raise was put up to find the iron vein on its dip. We passed through the vein 10 feet above the 7th level, where the characteristics of the vein are similar to the contact subsequently cut in the cross cut. The width of the vein filling of soft porphyry is 2 feet.—No. 2 cross cut, 7th level. This cross cut has been advanced 84 feet all the way in hard blacky porphyry.—Hanging wall cross cut No. 3, 5th level, south. After an advance of 10 feet in this cross cut without any improvement, work has been suspended.—No. 2 winze, 5th level, iron vein. In the early part of the month the suggestion of prospecting the north end of the iron vein in depth from the 5th level was adopted. The winze was sunk vertically through iron stained rock of a low grade value, till at 25 feet deep it struck hard porphyry. We sunk 4 feet further to reach the plane of the 6th level; this also is in hard porphyry. From the face of No. 1 cross cut, on 6th level, a diamond drill hole bored 110 feet and connected with the winze, through hard porphyry the full length of the bore hole. No. 1 crosscut, 6th level, south. Winze in base ore. Work was resumed here in following the ore channel; it can hardly be termed a winze. The ore channel has been followed a distance of 29 feet, and at no point is its depth over 4 feet vertically below the 6th level. Its width has been variable, between 2 and 2 feet, till recently; it is now about 12 inches wide. The free gold values have ranged between $3 and $8 per ton. The bases are still present.—Golden Eagle group, tunnel level, south drift. This drift has been advanced 52 feet during the month. The present face of the drift is in hard vitrous quartz—about $5 per ton—but during the month portions of the vein have assayed up to $30 per ton in gold.—Golden Eagle group, new shaft. The depth of the shaft is 32 feet. The vein in the bottom is 3 feet wide, with an average assay value of $10 per ton in gold. The quartz is very tough and hard to crush in the mill.—Milling department. The batteries were in service 28¾ days. In addition to the prolonged shut-down for annual clean-up at the beginning, we were closed down twice at the latter part of the month.—1st. On account of a breakdown on the engine-valve, which occupied 14 hours in repairing.—2nd. On 28th inst. an electrical storm and "curt cloudburst" flooded mill and engine room, almost closing down our boilers from water pouring down the smoke-stacks. The milling operations for the month are as follows:—Tons crushed 3264 tons, amalgam cleaned up, retorted and melted into bar is estimated to yield on assay $25,000, add profit from store (estimated) $500, $25,500. Expenses on revenue account $11,500. Estimated profit for the month $14,000, or at $4.90 to £ sterling, £2857. Average loss in tailings, $2·53. The fineness of the gold has run down this month, owing to the increase in silver fineness and the presence of copper in the ore. A comparison of fineness from April to July is appended:—April, gold, 857; silver, 133; total, 990; May, gold, 853¼; silver, 137; total, 990¼; June, gold, 831; silver, 152; total, 983; July, gold, 780; silver, 185; total, 965. The weather has been very stormy, with heavy rain and violent winds. The heat in the former part of the month was more excessive than usual, averaging at noon from 115° to 118° in the shade. All departments are in good working order.

LA YESCA.—The directors have received from Captain Michell a report dated 1st. inst.: San Miguel. The tunnel, from measurement yesterday, is extended 168 metres (560 feet) due north. The end is now being driven by three shifts of men working day and night. The strata in the forebreast is a conglomeration of limestone quartz impregnated with iron pyrites, which is considered to be of the most healthy nature for the production of mineral.—Wills vein. The ground standing above the level requiring repairs, is now thoroughly secured; the waste material cleared, and development work exposed to view. Work has been suspended here, as the blasting interfered with drivage of the tunnel to the San Miguel gold bearing vein. Ventilation. On Saturday last I added 20 yards to the tubes in the tunnel, and in a few days a further extension will be made.—Mill House. In a day or two the men will clear the house of waste material accumulated during construction.—Zapopan. I purpose shortly commencing to clear and put in proper repair the tunnel leading to the mine. I am informed that the vein in bottom of lower workings is large and exceedingly rich, yielding from $50 to $70 of silver per carga of 300 lbs. Work in the near future should be commenced. There is not a doubt that a large quantity of rich ore is standing above water level that could be taken away at a good profit. All work is being vigorously pushed forward.

NEW CRŒSUS.—The following is a summary of works reported by the general manager for the month of July, together with assay values of reefs now being developed. Driving and sinking 556 feet. The south reef third level, west of No. 2 incline shaft, three samples. Average width 28 inches, assay 110 dwts. each. Two samples, average width 11½ inches, assay 95½ dwts. Main reef west third level average width 30 inches, assay 11 dwts.

THISTLE REEF.—The mine manager reports under date Barberton July 26: The output of ore for the past week has been less owing to my having had to raise the stopes by filling in from surface, and owing to a considerable amount of dead work to do in the top drive in order to lay more rails; the reef here has twisted and turned a good deal, but in the face the reef now pens very well, and is from 4 feet to 5 feet wide. In the low level or main drive I am keeping double shifts going as usual, and preparing ground for further stopes.—South-east drive. I am working day and night shifts here, and at present am in very hard bed, but hope to strike the reef as soon as I am through it. I am also giving my attention to doing some prospecting on north-west end of the property. As soon as I can pick up the reef where it prospects well enough, I will start sinking a shaft to connect with the top drive, which will require more ventilation before much longer.

WENTWORTH EXTENSION.—Report dated July 16: East crosscut driven 6 feet, length 184 feet. Face still in hard diorite. West crosscut driven 14 feet, length 134 feet. No change. Drive from prospecting shaft No. 4 advanced 15 feet, length 60 feet. Gravel still prospecting well in gold.—Report dated July 23: East crosscut driven 8 feet, length 192 feet, without change. West crosscut driven 12 feet, length 146 feet. Face still in diorite. Drive from prospecting shaft No. 4 advanced 15 feet, length 75 feet. Gravel somewhat thinner, but prospects have improved during the week. Most of the material shows a value of 6 dwts. per ton.

ANGLO MEXICAN.—Writing on July 12, with regard to the gold mine at San Jose de Gracia, the manager says: I beg to hand you herewith, measurements of the work done in the mine for the week ending 7th inst. as follows: New main tunnel advanced 20 feet, total length 855 feet. Muertos tunnel advanced 25 feet, total length 1434 feet. No. 12 upraise advanced 4 feet, total length 70 feet. Drift south from No. 12 upraise advanced 6 feet, total length 13 feet. New air winze, Jesus Maria tunnel advanced 18 feet, total length 69 feet. The general appearance of the mine continues to be very encouraging, and we are finding an excellent grade of ore at all points where we are working. The extraction of milling ore continues steadily, and we are also extracting as much shipping ore as our limited facilities in the mine will allow. We are working hard to make necessary connection in order to facilitate extraction, and to secure good ventilation, and when these are finished we anticipate no difficulty in taking out with ease all ore that may be required. The rainy season coming on has also set us back, as most of the workmen have gone off to their ranches to plant, and we have of course, been left very short handed. You will note that we are finding a very good grade of ore in the No. 15 upraise (24 ounces gold per ton), which is one of the most important works in the mine, and the indications of its continuance at a good grade are very good. The sample from the ore which is being prepared for export gives an excellent average (16 ounces gold per ton) and we will have no difficulty in maintaining it.—Mill. The mill has not yet been able to start up, owing to the fact that we still lack some of the supplies and materials, which are delayed by flooded rivers. Before the month is over, however, I expect to drop the stamps.

AUSTRALIAN BROKEN HILL CONSOLS.—The mining manager reports by mail for the fortnight ending July 19: Block 96. 280 level east. Prospecting drive. No. 4 rise. Stopes driven 34 feet. Stoping on rich vein continued, yielding native silver, chloride and iodide of silver, but not in such compact and solid form as we had lately. Faces of stopes are not looking so promising, and the ore in the lode seems to be spreading over a greater surface and in smaller bunches, which may account for the above.—280 level west. Stopes driven 14 feet. No change: the lode formation carrying two veins of iron, and is dipping faster. Incline sunk 2 feet 6 inches, total 567 feet. No change. Lode still consisting of calcite and carbonate of iron. The influx of water has been heavier, caused by soakage through the rainfall. No. 4 level east incline driven 2 feet, total 235 feet. This level having evidently reached the eastern extremity of the ore shoot has been stopped, and the men have been transferred to stoping at bottom of No. 1 rise in this level, and raised from same galena and fahlerz containing native silver in solid nodules. No. 1 rise off No. 4 level east of incline driven 7 feet, total 47 feet. The lode has pinched galena and fahlerz has been met with. 180 level east stopes driven 10 feet. A block of ground here has been let on tribute.—Note: The quantity of rock mined during the fortnight was 2821 cubic feet.

BALAGHAT MYSORE.—From Captain Jos. Pryor, August 7: Ogle's shaft. I am very pleased to be able to say that not only have we completed all the necessary work in connection with the fixing of the 8 inch plunger lift at the 800 feet level, but we also started the pole to work on the 3rd inst., since which it has worked most satisfactorily. It will possibly be remembered the other poles are at the 165 and 410 levels, and that below this we only had one drawing lift, viz.: at the 600 feet level, and that between this and the bottom of the mine all the water had to be lifted with the aid of donkey pumps, which, by the way, were for a long time fully capable of dealing with the coming water, but were inadequate to satisfactorily cope with the inundations that usually occurred from any necessary stoppage for repairs, or other causes of the pumping engine, &c., hence were a constant cause of trouble and hindrance to the development of the bottom of the mine. This difficulty I am glad to say has now been removed, as with the fixing of the lift referred to above the state of our pitwork is now such that we have practically mastered our water troubles, and shall, we hope, henceforth proceed with the regular developments without any material lets or hindrances. During the fixing of the above, and the necessary stoppage of the pumping engine to make the pole connections and completing the column of pumps to the 410 feet level, the water of course rose some distance in the shaft; but I am pleased to say this has since been drained, and the men are once more engaged working in the bottom of the shaft. The quartz is from 7 inches to 9 inches wide, and assays 1 ounce 19 dwts. 2 grains per ton. The 800 feet level south has been driven 5 feet, or 18 feet 3 inches from the shaft. The lode, although of a kindly appearance, does not yield any quartz to value. I, however, expect an improvement shortly. The 800 feet level north has been advanced 16 feet 6 inches, or 202 feet from the shaft. The quartz varies from 15 inches to 4 inches wide, and assays about 10 dwts. per ton. The No. 1 winze in the bottom of this level has been sunk 10 feet 6 inches, or 63 feet below the level. The quartz is over 1 foot wide, and assays 3 ounces 14 dwts. 7 grains. The No. 2 winze (referred to in my last report as just being started) has been sunk 10 feet 3 inches below the level. The quartz is from 6 to 9 inches wide, and assays 1 ounce 3 dwts. 4 grains. The stopes in the bottom and back of this level yields quartz of from 12 to 14 inches wide, and assay on an average 1 ounce 11 dwts. 16 grains. The stopes in the bottom of the 730 feet level north produce quartz of from 9 to 14 inches wide, and assay 1 ounce 6 dwts. 15 grains. The stopes in the back of this level yield quartz of from 9 to 12 inches wide, and assay 15 dwts. 7 grains. The stopes in the buttom of the 660 feet level north produce quartz of from 6 to 9 inches wide, and assay 9 dwts. 2 grains. We have recently commenced driving a crosscut west at the 500 feet level for the purpose of cutting the necessary ground for a balance bob, and hope to get it completed at an early date.—Haines' shaft: I am glad to say we have again been enabled to resume the deepening of this shaft, as well as proceed with the cutting of the necessary ground for the trip-plat. The ground hereabout is very heavy and dangerous to work under, consequently we are not as yet able to make as much progress with the sinking as I should like, but after we have thoroughly secured the shaft we hope to make much better headway. The quartz is from 10 inches to 1 foot wide, and assays 7 dwts. 10 grains of gold per ton. The 870 feet level north has been driven 14 feet 6 inches, or 29 feet 3 inches from the shaft. Here the quartz is 3 feet wide, but assays only 4 dwts. of gold per ton. The 870 feet level south has been extended 19 feet 3 inches, or 39 feet from the shaft. The quartz varies from 1 foot 6 inches to 4 feet wide, and assays 6 dwts. 12 grains of gold per ton. The 800 feet level south has been driven 16 feet 3 inches, or 321 feet 6 inches from the shaft. The quartz for the first few feet varied from 1 foot to 6 inches wide, and assaying 15 dwts. per ton, but at about 10 feet behind the present end we intersected a crossing. This has disturbed the lode, and apparently thrown it to the west, and hence delayed the anticipated communication with the level north of Ogle's. A cross cut in this direction will be extended by-and-bye to prove it, but for the present we have brought the rock drill back to force the driving on another part of the lode, which has also gone off to the west. The No. 1 winze has been sunk 6 feet 3 inches, or 57 feet below the level. The quartz varies from 1 foot to 6 inches wide, and assays 6 dwts. 7 grains of gold per ton. The No. 2 winze has been sunk 5 feet 6 inches, or 16 feet 6 inches below the level. The quartz is 1 foot 6 inches wide, and assays 11 dwts. 7 grains of gold per ton. The level on the western branch has been driven to and holed with the drive north from the bottom of the midway winze in the 730 feet level south. The quartz varies from 4 to 6 inches wide, and assays 1 ounce 10 grains per ton. We now purpose enlarging this level, and then resume the driving southward to meet the level north of Ogle's. The stopes in the back of the 800 feet level south yield quartz of from 9 to 15 inches wide, and assays on an average 8 dwts. 12 grains of gold per ton. A stope in the back of the 800 feet level north produces quartz of about 1 foot wide, and assays 5 dwts. 2 grains of gold per ton. The levels north and south from the bottom of the midway winze at the 730 feet level have, as will be seen above, been communicated with the main or 800 feet level south of the shaft. A stope in the back of the 730 feet level south yields quartz of from 6 inches to 1 foot wide, and assays 6 dwts. 7 grains per ton.—Tennant's shaft. Having extended the crosscut west at the 420 feet level a further distance of 6 feet 9 inches, or 16 feet 9 inches from the shaft, and not meeting with anything of value, I have discontinued the cross cut and put the men to again resume the sinking of the shaft, as well as the extension of the levels north and south. The shaft has been sunk 2 feet, or 5 feet below the level; the lode is at present unproductive. We are at the same time taking down the necessary ground for a tip-plat, hence the shaft is now being carried about 12 feet wide. In addition to the above we have also extended the 420 feet level south 5 feet 6 inches, or 14 feet from the shaft, the level north 4 feet, or 13 feet from the shaft. In the former the lode is still unproductive and very hard for driving, but in the latter or north level the ground is evidently changing for the better, and I think we may shortly expect an improvement in the value of the lode. The 350 feet level north has been driven 10 feet 3 inches, or 143 feet 9 inches from the shaft, the ground continues very hard for driving, the lode, however, presents a somewhat more kindly appearance. The No. 1 winze in the bottom of this level has been sunk 3 feet 6 inches, or 19 feet 6 inches below the level. The quartz is 1 foot 6 inches wide, and assays 8 dwts. 14 grains of gold per ton. This place has hitherto been sunk with hand labour, but being desirous to force it with greater speed, we have withdrawn the rock drill from the 350 feet level south, and put it in this winze instead, and hope thereby to considerably increase the speed of sinking. The rise in the back of this level has been advanced 8 feet, or 44 feet 9 inches above the level. The quartz is 1 foot wide, and assays 7 dwts. 10 grains of gold per ton. The 350 feet level south has been extended 9 feet 6 inches, or 168 feet 3 inches from the shaft. The lode, although not yielding any quartz to value, continues of a promising appearance, but being desirous of forcing the sinking of the northern winze with greater speed, we have suspended this end for a time, and removed the rock drill to the winze. The winze in the bottom of this level has been only sunk 2 feet, or 19 feet 9 inches below the level. The quartz in the northern end is 15 inches wide, and assays 5 dwts. 2 grains of gold per ton. This winze is also being sunk with hand labour, but the men have not of late been making satisfactory headway, and have consequently all been dismissed, and a fresh batch recently engaged; I hope they will do better.—Surface. The masons have completed the building of the necessary loadings for balance bob, and the engineers are now proceeding with its erection. All the other general work is progressing satisfactorily.

BAYLEY'S REWARD CLAIM.—Mining report dated Coolgardie, W.A., July 7: Sylvester shaft. South drive since last report has been driven 11 feet, total 83 feet. Lode still continues strong and well defined. The two walls being fully 6 feet apart, with 4 feet of solid stone, containing pyrites and other minerals, giving every indication of gold bearing stone. West cross cut (Gorrie's lode) has been driven 11 feet, full length now being 93 feet from shaft, ground during week has been hard with open joints, with in places small streams of water coming through. 160 feet level driven for a week 18 feet, total 140 feet; lode still having the same promising appearance, with in places streaks of ironstained material. —100 feet stopes. Have been doing a good deal of timbering during the week, consequently have little or no change to report.—Begelhole shaft. Yielding same class stone as previously reported.—Everard shaft. South drive extended 4 feet, total 99 feet; the face now being so far from shaft it requires ventilation. We have now started to rise, which will be continued to the surface. It will then answer for both purposes, give better air, and open up ground for stoping. During the week it has yielded some very rich stone, the gold being coarse, heavy, and freely seen.—Cockshott shaft. Have completed opening out chamber, have now resumed driving, face being 21 feet from shaft; lode from 3 to 4 feet thick. Should judge from appearances fair battery stone, which I anticipate will still further improve as we continue north.—Tramway. During week a considerable amount of work have been done in connection with the foundations of the tramway being constructed from the battery to Cockshott and Everard shafts, which will be of great convenience when completed.—Timber. During the fortnight we have got in a large quantity of timber used for mining, and a large quantity required for the erection of the second 10 stampers. The bed and pile logs are now being squared, and the whole sunk for the foundation of the stamper boxes, which it will be necessary to sink from 12 to 14 feet in order to make everything perfectly solid. —Battery. We are very pleased to say everything is working well, the boiler apparently in the best order.—Stone crushed. For the fortnight we have crushed 125 tons, 4 tons being from the tent. The 4 tons taken has not been so rich as formerly as we do not now take the trouble to pick it so clean as it was necessary previous to the battery being started. The week's run has turned out a very good one, the stone taken probably being a little better than the average. —Yield. Fortnight run 1200 ounces.—Gold dispatched, 2400 ounces of bar gold will be dispatched to-morrow by escort, being the return for the four weeks. Instead of running the five stamps constantly we work the ten when water can be procured. We find this more economical, and it enables us to crush slightly more than we could do with the five stampers only.—W. H. Matthews.

BRITISH BROKEN HILL PROPRIETARY.—Extracts from mining manager's report for week ending July 18: Blackwood (No. 1 shaft), 200 feet level. We are still following the small shoots of carbonate ore in uprise over north drive off east crosscut.—400 feet level. North drive off west crosscut driven during week 7 feet, total length 34 feet, face showing hard low grade sulphides mixed with mullock. South drive off west crosscut extended 12 feet, total length 54 feet, still in low grade sulphides and mullock. Howell (No. 2) shaft sunk 6 feet during week, total depth 99 feet below 200 feet level. Bottom of shaft showing mullock mixed with sulphide ore.—200 feet level. The east crosscut off end of south drive on 10th floor of far north stopes has been lengthened 13 feet, total length 46 feet, face still in mullock.—Retallick shaft, 115 feet level. Winze in end of No. 3 west crosscut sunk 6 feet during week, total depth 78 feet below this level. Bottom showing fair grade sulphide ore. — Marsh (No. 6) shaft, 2nd level. The west crosscut off end of north drive off No. 3 east crosscut has been extended 11 feet during week, total length 17 feet, and connection made with main south drive, crosscut at this point being entirely in mullock. We are cutting out a chamber in the north drive at a point 20 feet north from No. 3 east cross cut to enable us to sink a winze to prove the depth of the carbonate ore body at this point. The south west drive near Junction boundary was driven 8 feet, total length 87 feet; face showing fair grade sulphide ore. Are following ore chutes and obtaining some good grade ore both north and south above Nos. 2 and 3 west cross cuts. Are also rising up on a patch of ore just off No. 3 west cross cut. We have broken during the week about 9 tons of first class ore, averaging (face sample) 33 per cent. lead and 142 ounces silver per ton, and 1 ton of seconds, assaying 13 per cent. lead and 30 ounces silver; 11 tons of first class ore assaying 25 per cent. lead and 90 ounces silver per ton, and 3 tons of seconds, assaying 32 per cent. lead and 44 ounces of silver per ton. The week's assays vary from 5 per cent. to 41 per cent. of lead, and from 8·8 to 262·9 ounces of silver per ton.

HARRIETVILLE.—Fortnightly report of Mr. T. G. Davey, superintendent, July 20: Mons Meg Mine, Rise at back of south drive 100 feet below tunnel D advanced 5 feet, total 27 feet. The lode is so wide that only the hanging wall portion is being developed by the rise, where it is somewhat auriferous, but not payable. This poverty in the lode will probably continue until the fault is reached, where, according to appearances in the main winze, it should become highly auriferous. North rise at same level advanced 16 feet, total 37 feet. Lode 2 feet wide, and carrying colours of gold. We hope that a similar change in the quality of the lode to that which we anticipate in the south rise will take place here when the fault is reached. South drive 240 feet below tunnel J extended 8 feet, total 48 feet. Lode 10 feet wide, but only auriferous over a width of 18 inches, which portion assays 3 dwts. per ton. We should meet with an improvement as driving proceeds. Rise at back of same level advanced 21 feet. Lode small and poor.—Stopes. Lode in stopes at back of drive south of tunnel D on Mons Meg main shoot from 10 feet to 15 feet wide, and assaying from 3 dwts. to 5 dwts. per ton. South stope at back of 240 feet level below J lode 2½ feet wide, assaying 5 dwts. per ton. Lode in stope at back of 44 feet level 6 feet wide, and assaying 13 dwts. per ton, Gold occasionally visible in quartz leaders.—Saint Bernard Mine. In consequense of the late unusually heavy falls of snow, it has been found impossible to carry on operations at this mine during the past week. Work will, however, be resumed as soon as the weather improves.

MYSORE REEFS.—Fortnightly report of Captain M. Scantlebury, mine agent, dated August 7: Underlie shaft. This shaft has been sunk 10 feet, now 31 feet 6 inches below the 250 feet level. The lode is for the present in a disordered state, and intermixed very much with country rock, consequently the assay value is rather low, 4 dwts. 12 grains per ton. 250 feet level north has been advanced 13 feet, now 105 feet 6 inches from shaft. The lode is 1 foot wide, and worth 15 dwts. of gold to the ton. We have also risen 6 feet 6 inches with this rock drill, and have communicated with the 200 feet level south from vertical shaft. Vertical shaft has been sunk by hand labour 3 feet 9 inches, now 10 feet below the 200 feet level. We shall get on a little better in sinking now the communication between the two shaft is made. 200 feet level south has been advanced 16 feet, now 150 feet 6 inches from shaft. The lode is 1 foot wide and worth 18 dwts. of gold to the ton. 200 feet level north rise above this level has been put up 9 feet, now 16 feet above the level. The lode is 15 inches wide, and worth 1 ounce 6 dwts. of gold to the ton. Winze below the 200 feet level south has been sunk by hand labour 2 feet 6 inches, now 10 feet 6 inches below the level. The lode is 15 inches wide, and worth 1½ ounces of gold to the ton. —New shaft north of vertical. This has been sunk 15 feet 6 inches. We have also sunk a small shaft in the valley 17 feet 6 inches, to get water for the stamps. I hope in two or three days more to get a little when the stamps will be started.

MYSORE WEST AND MYSORE-WYNAAD CONSOLIDATED. —Tank Block. The mining manager in India reports by mail under date the 1st August as follows:—North shaft, 350 feet level crosscut east, total 44 feet. Work was stopped on the 14th inst. as there was no change.—South shaft. The shaft has been sunk to a depth of 420 feet, progress for the month 13 feet 6 inches. Strings of quartz are coming into the hanging, one of which gave an assay of 1 ounce 3 dwts. 18 grains. The water is heavy from this 400 level, but ground at the bottom is much tighter. 354 feet winze has been sunk to a depth of 29 feet, progress for the month 14 feet. Lode is 2 feet wide, of which 18 inches is quartz. Average assay 2 ounces 18 dwts. 12 grains.—354 feet stope. This was stopped from the 7th to the 24th. The quartz has opened out to 4 feet 6 inches, having an average value of 2 ounces 16 dwts. 6 grains. 400 north has been driven to 65 feet, progress for the month 28 feet 6 inches. The lode is 2 feet wide, of which 1 foot 6 inches is quartz. The average assay is 15 dwts. 6 grains. The stone here is improving. 400 level south started on the 18th has been driven 23 feet. The level passed through some very rich quartz, some of which assayed 12 ounces of gold per ton, but after this the ground is broken with large clay joints. It seems that this end is in the broken ground between two shoots. There is still about 1 foot of quartz on the footwall, but it is not so rich; the average assay is 1 ounce 14 dwts. 18 grains. There is about 50 tons of mixed stuff for the mill.

MOUNT LYELL.—The London committee have received the following report from the Melbourne board for the week ending July 12:—Engine shaft 100 feet level. The south drive has been advanced 4 feet, total 45 feet. A hard bar of quartzite came in, but is giving place to schist and iron again.—Intermediate 75 feet level. The north level has been driven 14 feet, total 32 feet. This drive has been holed through to the ore winze.—50 feet level. The south drive has been driven 4 feet, total 148 feet. There is a slight improvement in the ground.—No. 1 winze. The winze has been sunk 4 feet, total 28 feet, still in similar country to that last reported.—Stopes. Stoping west of the north and on the floor above has been carried on as usual and rich ore broken.—No. 5 tunnel. The contractors have driven 9 feet, total 696 feet, completing their contract on Monday last. Fresh tenders have been called for driving 200 feet further. Wages men are now working in the face, pending the letting of the contract. The country is conglomerate, rather harder and tighter than it has been. Since the contractors finished, the tunnel has been driven 5 feet 6 inches, total 701 feet 6 inches.—Ore raised. 298 bags, weighing 14 tons 7 cwts. 1 qr. 14 lbs. Contents 9720 ounces of silver and 3 tons 3 cwts. 1 qr. 16 lbs. of copper, or an average of 581 ounces silver and 20 per cent. of copper per ton.—Ore dispatched, 267 bags, weighing 10 tons 14 cwts. 2 qr. 6 lbs., containing 13,131 ounces silver and 2 tons 13 cwts. 2 qrs. 13 lbs. of copper.

MYSORE GOLD.—R. Hancock, August 7: Mining operations for the fortnight ending August 6: Rowse's shaft, 1460 north of crosscut. This end has been driven 24 feet 6 inches, making a total distance driven of 104 feet. The lode is 1 foot 6 inches wide, assaying 1 ounce.—1460 north of winze. This end has been driven 24 feet. The lode is 1 foot 6 inches wide, assaying 13 dwts. 1 grain.—1360 feet level north, south of cross cut. This end has been driven 3 feet, making a total distance driven of 123 feet 4 inches. The lode is 1 foot wide, assaying 16 dwts. 23 grains.—1360 feet level north of winze. The lode in the stope in the back of this level is 7 feet wide, assaying 5 dwts. 5 grains.—1260 feet level north. There are five stopes in the back of this level, the average width of the lode being 4 feet 10 inches, giving an average assay of 1 ounce 8 dwts. 15 grains.—1260 feet level south. Driving south on the fold in the back of this level has been driven 20 feet, making a total distance driven of 108 feet 6 inches. The lode is 4 feet wide, assaying 2 ounces 14 dwts. The winze in the bottom of this level has been sunk 19 feet 6 inches, making a total depth of 27 feet 6 inches. The lode is 2 feet 6 inches wide, assaying 5 dwts. There are two stopes in the back of this level, the average width of the lode being 2 feet 9 inches, giving an average assay of 1 ounce 3 dwts. 22 grains.—1160 feet level north. There are four stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 1 ounce 1 dwt. 7 grains.—1160 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 2 ounces 2 dwts. 9 grains.—1060 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 13 dwts. 13 grains. We have two pares of men stripping down side in the bottom of this level, in which the lode averages 1 foot wide, giving an average assay of 13 dwts. 20 grains.—990 feet level north. We have a pare of men engaged stripping down side in the back of this level, in which the lode is 1 foot wide, assaying 1 ounce 4 dwts. 19 grains.—890 feet level north. We have resumed the driving of this level in a north-easterly direction with the object of intersecting the lode met with on the 19th ult. in the 780 feet level. Driven 6 feet 6 inches, making a total distance driven of 567 feet 1 inch from the shaft. The lode in the stope in the back of this level is 2 feet wide, assaying 6 dwts. 12 grains.—780 feet level north east. This end has been driven 5 feet, making a total distance driven of 527 feet. This machine has been put to drive north on the lode intersected.—780 feet level north on new chute. This end has been driven 16 feet. The lode is 3 feet 6 inches wide, assaying 2 ounces 10 dwts.—780 feet level driving south on the new chute. We started to drive this on the 1st inst. by hand labour. Driven 1 foot 6 inches. The lode is 3 feet 6 inches wide. No assay made.—780 feet level north. The lode in the stope in the back of this level is 3 feet wide, assaying 1 ounce 6 dwts. 3 grains.—620 feet level north of crosscut. This end has been driven 3 feet 6 inches, making a total distance driven of 253 feet 6 inches. There is nothing here to report. There are three stopes in the back of this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 6 dwts. 9 grains.—466 feet level north of No. 1 crosscut. This end has been driven 13 feet 6 inches, making a total distance driven of 63 feet 6 inches. The lode is 3 feet wide, assaying 5 dwts. 5 grains.—296 feet level north. Driving north on the branch met with in the eastern side of the level above has been driven 7 feet 6 inches, making a total distance driven of 68 feet. The lode having become pinched, we have suspended the driving and put the machine to stope in back of the 400 north of Crocker's. —236 feet level north. We have a pare of men cutting out ground in the bottom of the rise in the back of the level on line of incline for Crocker's shaft, in which the lode is 1 foot 6 inches wide, assaying 7 dwts. 19 grains.—Crocker's shaft, 400 feet level north. There are four stopes in the back of this level, the average width of the lode being 4 feet 3 inches, giving an average assay of 4 dwts. 3 grains.—400 feet level south. The lode in the stope in the back of

this level is 3 feet wide, assaying 2 dwts.—296 feet level north. There are four stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 14 dwts. 22 grains.—236 feet level north. There are four stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 1 ounce 6 dwts. 12 grains.—Taylor's shaft 466 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 18 dwts. 6 grains.—Gilbert's shaft, 520 feet level north. The winze in the bottom of this level has been sunk 18 feet, making a total depth of 30 feet. The lode is 3 feet wide, assaying 6 dwts. 12 grains. The lode in the stope in the back of this level is 2 feet wide, assaying 9 dwts. 2 grains. —520 feet level south.—The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 19 dwts. 14 grains.—360 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet 1 inch, giving an average assay of 19 dwts. 13 grains.—290 feet level north. There are four stopes in the back of this level, the average width of the lode being 2 feet 2 inches, giving an average assay of 1 ounce 7 dwts. 18 grains.—180 feet level south, Taking away arches of ground in the back and bottom of this level, the lode averages 2 feet 9 inches wide, giving an average assay of 3 dwts. 22 grains.—Tennant's shaft. We have a pare of men cutting out ground and putting in timber for fixing a lift.—600 feet level north. This end has been driven 17 feet 6 inches, making a total distance driven of 59 feet 6 inches; there is a small branch of quartz about 2 inches wide in the end.—520 feet level north. The rise in the back of this level has been put up 8 feet, making a total height of 109 feet, and communicated to the winze sunk in the bottom of the 360. The machine was transferred on the 1st inst. to drive the 890 feet level north of Rowse's. The winze in the bottom of this level has been sunk 9 feet 6 inches, a total depth of 31 feet 6 inches. The lode is 2 feet 6 inches wide, assaying 5 dwts. The lode in the stope in the back of this level is 3 feet wide, assaying 4 dwts. 13 grains.—290 feet level south north of crosscut. The winze in the bottom of the level has been sunk 8 feet 6 inches, making a total depth of 16 feet 6 inches. The lode is 2 feet wide, assaying 1 ounce 13 dwts.—Schaw's shaft, 450 feet level north crosscut east. This end has been driven 2 feet, making a total distance driven of 31 feet. The winze in the bottom of this level has been sunk 3 feet, making a total depth of 96 feet. The lode is 9 inches wide, assaying 1 ounce 8 dwts. 17 grains. There are two stopes in the back of this level, the average width of the lode being 1 foot 6 inches, giving an average assay of 1 ounce 6 dwts. 20 grains.—450 feet level north, south of crosscut. The winze in the bottom of this level has been sunk 6 feet, making a total depth of 32 feet 6 inches. The lode is 2 feet wide, assaying 1 ounce 12 dwts. 16 grains. There are three stopes in the back of this level, the average width of the lode being 2 feet 4 inches, giving an average assay of 13 dwts. 14 grains.—320 feet level south of crosscut. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 6 dwts. 12 grains.—220 feet level north, This end has been suspended, and the men put to stope in the back of the 450 feet level north, south of crosscut.—McTaggart's shaft. We have had two machines cutting a plat at the 450 feet level, and during the time the shaft is being cleaned up, they have been put to stope in the backs of the 450 feet levels north and south of crosscut.—450 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 5 dwts. 5 grains.—Glen shaft, 250 feet level north crosscut west. This has been driven 13 feet 3 inches, making a total distance driven of 62 feet.—Crosscut east. This has been driven 3 feet, making a total distance driven of 259 feet 6 inches.—Ribblesdale's shaft. This shaft has been sunk 16 feet, making a total depth of 366 feet.—1060 rise. This has been put up 2 feet 6 inches, making a total height of 30 feet 6 inches.—Williams' shaft, 173 feet level crosscut east. This has been driven 3 feet, making a total distance driven of 59 feet. The health of the camp is good.

NUNDYDROOG.—August 7: Report of the work done for the month of July: Taylor's shaft sunk 10 feet, total depth 1095 feet. The lode is 2 feet wide, and assays 13 dwts. per ton. 1080 north driven 54 feet, total length 75 feet. The lode is 2 feet wide, and assays 1 ounce per ton. 1080 south driven 43 feet, total length 46 feet. The lode is 2 feet wide, and assays 10 dwts. 18 grains per ton. 1000 south cross cut east driven 36 feet 6 inches, total length 48 feet. The ground is very hard, and there is no change. 1000 north driven 47 feet 6 inches, total length 560 feet. There is a splendid lode in this drift 3 feet wide, assaying 4 ounces per ton. 1000 north winze sunk 13 feet, total depth 13 feet. The lode is 2 feet in width, assaying ½ ounce per ton. 1000 north rise risen 27 feet, total height 27 feet; and 920 north winze sunk 21 feet, total depth 66 feet when we holed these two places; the lode at the point of contact is a fine one, 3 feet wide, assaying 1 ounce 12 dwts. 12 grains per ton. 920 north No. 2 drive driven 52 feet, total length 272 feet; the lode is 2 feet wide, and assays 9 dwts. 18 grains per ton. 920 north rise against main shaft risen 23 feet, total height 23 feet the lode is 4 feet wide, assaying 12 dwts. per ton. 680 north crosscut east driven 34 feet, total length 58 feet. We have cut some more stringers of quartz. 680 north crosscut west driven 34 feet, total length 6 feet; there is no change here. Main shaft below 840 sunk 19 feet, total depth 859 feet; the lode is 1 foot 3 inches wide, and assays 10 dwts. 18 grains per ton. Kennedy's shaft sunk 3 feet 6 inches, total depth 552 feet 6 inches. We have now got the new pitwork completed, and hope to make good speed. 520 north driven 34 feet 6 inches, total length 139 feet 6 inches; the lode is opening out, being now 2 feet wide, and assaying 10 dwts. 18 grains per ton. 520 south driven 51 feet, total 151 feet. The lode is 1 foot wide and assays 13 dwts. per ton. 520 north rise risen 35 feet 6 inches, total height 106 feet, when we holed to the 440 north. The lode is 2 feet 6 inches wide and assays 10 dwts. 18 grains per ton. 440 north, No. 3 rise, risen 79 feet, total length 79 feet; there is a very fine lode in this rise 4 feet wide, assaying 3½ ounces per ton. 440 south driven 44 feet, total length 376 feet. The lode is a splendid one, 5 feet wide, assaying 3½ ounces per ton, 370 north, cross cut west, driven 29 feet 6 inches, total length 33 feet 6 inches. The ground is very hard. 370 north, back stope, ground stoped 10 fathoms in a lode 2 feet wide, assaying 3 ounces 1 dwt. 18 grains per ton. 370 north, No. 3 bottom stope, ground stoped 11 fathoms in a lode 2 feet 6 inches wide, assaying 16 dwts. 6 grains per ton. 300 south, rise, risen 6 feet, total height 6 feet, when we holed to the winze in the 160 north intermediate. The lode is 6 inches wide, assaying 1 ounce 2 dwts. 18 grains per ton. The stopes, &c., working by hand labour are as follows:—1000 south winze, ground cut 11 feet, total length 14 feet 6 inches, size of lode 6 inches, assay value trace. 920 north No. 1 drive, ground cut 11 feet, total length 115 feet, size of lode 4 inches, assay value 4 dwts. 6 grains, 840 north crosscut east, ground cut 10 feet 6 inches, total length 34 feet 6 inches. 760 north No. 1 back stope, ground cut 28 feet, size of lode 1 foot, assay value 1 ounce 2 dwts. 18 grains. 680 north winze, ground cut 8 feet, total length 60 feet, size of lode 4 inches, assay value 8 dwts. 18 grains. 680 north No. 1 bottom stope, ground cut 19 feet 6 inches, size of lode 1 foot 6 inches, assay value 15 dwts. 680 north No. 2 bottom stope, ground cut 22 feet, size of lode 2 feet, assay value 16 dwts. 6 grains. 600 north No. 1 bottom stope, ground cut 22 feet 6 inches, size of lode 1 foot 3 inches, assay value 10 dwts. 600 north No. 2 bottom stope, ground cut 32 feet, size of lode 1 foot 3 inches, assay value 13 dwts. 600 north intermediate, ground cut 9 feet, total length 43 feet, size of lode 9 inches, assay value 6 dwts. 12 grains. 600 north No. 1 back stope, ground cut 16 feet, size of lode, 1 foot, assay value 1 ounce 0 dwt. 12 grains. 600 north No. 2 back stope ground cut 14 feet, size of lode 1 foot, assay value 15 dwts. 520 north No. 1 bottom stope ground cut 16 feet, size of lode 1 foot, assay value 1 ounce 3 dwts. 18 grains. 520 north No. 2 bottom stope ground cut 8 feet, size of lode 2 feet, assay value 6 dwts. 12 grains. 520 north No. 3 bottom stope ground cut 36 feet 6 inches, size of lode 1 foot, assay value 1 ounce 6 dwts. 520 north No. 4 bottom stope, ground cut 30 feet, size of lode 1 foot 6 inches, assay value 1 ounce 3 dwts. 18 grains, 520 north No. 1 back stope ground cut 42 feet, size of lode 1 foot 6 inches, assay value 8 dwts. 18 grains. 370 north No. 1 back stope ground cut 28 feet, size of lode 1 foot, assay value 9 dwts. 18 grains.—Kennedy's. 95 north intermediate stope ground cut 28 feet, size of lode 4 feet, assay value 14 dwts. 95 north No. 2 bottom stope ground cut 23 feet, size of lode 1 foot, assay value 7 dwts. 12 grains. 160 north intermediate stope ground cut 8 feet, total length 173 feet, size of lode 4 inches, assay value 4 dwts. 6 grains. 160 north intermediate winze ground cut 4 feet 6 inches, total length 41 feet 6 inches, size of lode 6 inches, assay value 1 ounce 10 dwts. 300 south No. 1 back stope ground cut 30 feet, size of lode 1 foot, assay value 1 ounce 5 dwts. 300 south No. 2 back stope ground cut 30 feet, size of lode 1 foot 6 inches, assay value 3 ounces 15 dwts. 18 grains. 300 south No. 3 back stope ground cut 40 feet, size of lode 3 feet, assay value 19 dwts. 12 grains. 300 north No. 1 back stope, ground cut 40 feet, size of lode 2 feet, assay value 17 dwts. 6 grains. 370 south drive, ground cut 13 feet, total length 215 feet, size of lode 3 feet 6 inches, assay value 16 dwts, 6 grains. 370 north drive, ground cut 12 feet, total length 324 feet, size of lode 1 foot, assay value 3 dwts. 6 grains. 370 north No. 1 bottom stope, ground cut, 25 feet, size of lode 2 feet 6 inches, assay value 15 dwts. 370 north No. 2 bottom stope, ground cut 27 feet 6 inches, size of lode 4 feet, assay value 13 dwts. 440 south drive, ground cut 9 feet total length 332 feet, size of lode 3 feet, assay value 2 ounces 14 dwts. 6 grains.—Mills. Both mills and tailings machinery are running well.—Health. The general health of the camp is good.—Old mill samples. Rough quartz through stonebreakers, 1 ounce 6 dwts, Smalls, 2 ounces 14 dwts. 6 grains.—New mill samples. Rough quartz through stonebreaker, 1 ounce. Smalls, 19 dwts. 2 grains.

NINE REEFS.—Fortnightly report of Captain John Woolcock, mine agent, dated August 7: Vyvyan's shaft. At the 220 feet level to the south of the shaft we are stoping the back of the level. In the No. 1 stope the lode formation is from 3½ to 4 feet wide. The quartz leader is about 8 inches wide, and worth by assay 1 ounce 11 dwts. 6 grains. The ground stoped for the fortnight is 2 fathoms 4 feet 8 inches. The No. 2 stope north of rise the quartz varies from 5 to 8 inches wide, and worth by assay 2 ounces 5 dwts. 2 grains of gold per ton. The ground is hard, and the quartz being narrow we are obliged to blast out a good deal of unproductive rock with it, which will considerably reduce the yield of ore that has to be treated. Ground stoped in the fortnight is 2 fathoms 5 feet 4 inches.—Bennett's shaft. The lode intersected in the 145 cross cut west at 278 feet from the mouth has been opened upon 22 feet, and in this drivage nothing of value has been met with The lode is from 1 foot to 15 inches wide, of a disordered character. I stopped the end yesterday, and put the men to drive the cross cut further west with a view of meeting with something better in that direction.—South shaft. I am pleased to say we holed the rise with the vertical on Saturday. It has been risen 9 feet 11 inches, total from bottom of crosscut 33 feet 5 inches. We were obliged to cover over more than half of our top set and effect the communication by means of a small rise, owing to the weak state of the hanging wall, and having only one Englishman for this work, our progress was slow. The place is well ventilated, and in a few days everything will be made secure and strong, and the sinking of the shaft will be resumed below the crosscut in a lode 5½ feet wide, of a most promising character. The crosscut east from this shaft has been driven a further 12 feet 3 inches, making a total distance of 53 feet. The ground continues favourable for driving.—Prospecting The No. 1 shaft sinking at 60 feet from our south boundary on the McTaggart's lode has been sunk a further 12 feet 2 inches, making a total depth from surface of 97 feet 10 inches. The lode is about 20 inches wide and worth by assay 5 dwts, 14 grains of gold per ton. The water is increasing, which retards the sinking. We have met with nothing in the crosscut driving east and west from the bottom of No. 4 shaft on this lode. The east crosscut has been driven 1 foot 10 inches, total from shaft 5 feet 11 inches. West crosscut has been driven 2 feet, total from shaft 6 feet 5 inches: the ground continues very hard indeed, and the progress is slow. There has nothing measurable been done in the No. 5 shaft since my repost of the 24th ulto. I was obliged to suspend the sinking for a time on account of the hanging wall requiring timber, and as soon as our timberman finishes at the south shaft, this work will be done forthwith. The lode is 15 inches wide, and as reported last time worth by assay 7 dwts. 6 grains of gold per ton. There is nothing that calls for remark in any of our surface operations.

MOUNT ZEEHAN (Tas.)—Manager reports for week ended July 17: Argent section, main engine shaft No. 6 lode intermediate level south stope. Ore raised 18 tons good seconds; lode 8 inches wide. 72 feet level south extended 9 feet, total 211 feet 6 inches; lode 2 feet 9 inches wide, carrying good milling ore. Ore raised, 17 tons. Stope in back of level continued, but ore kept below.—132 feet level south. Rise and stope continued. Ore raised, 20 tons 3 cwts. medium seconds; lode 4 feet 6 inches wide, carrying medium quality seconds.—132 feet level north. Stope continued. Raised 19 tons low quality seconds.—192 feet level north. Rise on No. 4 lode rose 6 feet, total 14 feet; lode 5 feet wide carrying a little galena. Crosscut west in search of No. 6 lode extended 8 feet 6 inches. Ground is hard and dry and not encouraging. Crosscut west to No. 7 lode extended 5 feet 6 inches, total 100 feet 6 inches. Passed through a formation a few inches wide running north 19½ degs. east. Concentrator has been run 41 hours on local company's ore and crushed 110 tons, and on our own ore 18 hours, crushing 60 tons, which produced 9 tons 7 cwts. concentrates, containing about 6 tons 19 cwts. of lead and 675 ounces of silver.

NEW LOUIS D'OR (Main Reef).—The following letter has just been received from Mr. S. Hill, the company's manager at the mine; this letter is referred to in the P.C. addressed to you on the 20th inst. as being expected:—"To the directors of the New Louis d'Or Gold Mining Company.—Gentlemen, I arrived here on the 20th inst., visited your property on the 21st. The Boundary Beacons were destroyed so had to go to the mine inspector to see the registered plan, which I saw; again I visited the property and found all right. I will wire you later on. Your property joins the Henry Nourse Gold Mining Company and should be very valuable. I beg to recommend that a shaft be sunk in the vicinity of the bore to a depth of about 200 feet, this will ensure striking the reef. Samples from this reef taken on the company's property assays 1 ounce to 25 dwts. to the ton, and is at least 2 feet 6 inches in width. I think I am serving the company's best interest in at once opening up this portion of the property and concentrating my energies on this reef. I intend building a cheap galvanised room on the mine for myself as there are no lodgings nearer than Johannesburg, then I shall be on the mine at all hours; it shall cost the company as little as possible. As soon as I get papers, &c., from you by next post I shall start sinking.—(Signed) S. Hill."

PESTARENA.—Midmonthly report: Ends. The lode in the 55 east is 1·30 metres wide, but is at present producing only about 2 tons of 1 ounce ore per fathom. In the 70 east the lode is 1·20 metres wide, carrying about 20 centimetres of quartz and a little pyrites, but not sufficient to value. The A and B east still carries two branches of solid pyrites, the A being 8 centimetres, and the B being 15 centimetres wide. The total value is estimated at 3 tons of 1 ounce 10 dwts. per fathom. The 90 west on No. 1 lode is carrying two branches, and is producing 8 tons of 1 ounce ore per fathom. The 140 west on No. 5 is carrying a branch of pyrites 10 centimetres wide, the remainder of the lode being quartz and schist. Its value is estimated at 1 ton of 1 ounce 10 dwts. ore per fathom. The 46 east carries a lode 1 metre wide, but no pyrites have yet been met with. Owing to the quantity of water met with in the 110 winze on No. 5 lode, this must be temporarily suspended.—Crosscuts. There is nothing new to report in either of the 70 crosscuts north, 90 or 130 crosscuts.—Stopes. These continue to yield approximately the same as was reported on the 3rd inst.—Stabioli Mine. The lode in the Anza level end north has been disturbed by a crossbranch, and at present carries no pyrites. Fair progress is being made with the crosscut west from the Morghen adit, and it is hoped that by the end of the present month the tramroad will be completed.—Kint Concession. The winze under the Quarazza adit is progressing favourably, as the old workings have become wider. Some old pumps have been found, and it is hoped that, beside timbering, there will be but little to do until the bottom has been reached. At the Guja adit all the stuff has been cleared, an air machine fixed, and driving resumed. The rock is at present exceedingly hard. All the machinery continues to work well, and satisfactory progress is being made with forking the Possone Mine, the water having been drained to a depth of 16·30 metres, and the lifts to-day lowered another 2·25 metres. At the Peschiera Mine the water has been forked to a little below the 150 fathom level.—(Signed) W. Henwood Trelease, T. Henry Mesa.

QUEEN'S BIRTHDAY UNITED.—The directors have received the following mail advice dated Dunolly, July 23, from Mr. W. T. Hansford, the company's local secretary:—Queen's Birthday Mine, main shaft. The work at No. 7 level has been resumed. The crosscut in 178 feet, quartz leaders coming in at face, also water, which encourages to hope that Kent's views will prove correct.—Centre shaft. The news here is really most encouraging. The 100 tons trial crushing gave us the splendid return of 70 ounces retorted upon smelting 67½ ounces gold. At No. 2 level we are breaking out stone. In the winze going down the lode is 18 inches, widening as we sink. At No. 3 level the reef at face making good and solid, of better quality than on the level above. This is of great importance, the lode and gold making north into new country, and very important, the country is entirely virgin below this level. The trial crushing of 100 tons for 70 ounces, proves beyond a doubt the existence of a payable lode in this part of the mine, and the deeper it is worked the better it is. The local committee have ordered more men to be put on to open up, so as to get ready for more extensive works, viz, get levels pushed ahead as fast as possible and winzes through. Some excellent gold is reported to-day as showing at the face of No. 3 level.—Belgium and Perseverance mine. The levels have been continued since last report north and south, but we have not passed through the Broken country. The committee have decided that a crosscut put towards the Perseverance line would very probably strike a lode long ere we reached the Perseverance—a lode of which there are indications. This work has been commenced to-day.

QUEEN CROSS REEF.—Copy of manager's report for fortnight ending July 10: Since last report the contractors have sunk the vertical shaft 16 feet, making it a total depth of 871 feet 6 inches from the surface and 49 feet below the timber. The sinking has been fairly hard during the fortnight, but a nice floor has come in again this morning. Barrett and party, tributers, have about 50 tons of stone broken below ready for hauling. Brunskill and party have about 30 tons on top. They finished a crushing of 67 tons at the Syndicate's new mill for a yield of 78 ounces of smelted gold. Fox and party have about 20 tons on top. Everything in connection with the mine is in good working order.

SOUTH AUSTRALIAN PETROLEUM FIELDS.—The following letter has been received from Mr. George Adams:—I have just returned from the Continent, and find the enclosed, which is the burning oil made out of the sample of Burmese crude oil you gave some time since. The quantity of this product is 48 per cent. of the whole specific gravity ·900, and firing point 99°, as against 73° Abel test, the regulation here and in India. I think this outturn most satisfactory. The remainder of the products are not completed.

SUTHERLAND REEF.—Extract from mine manager's letter dated August 2: During the past week the east drive has been extended 10 feet, and the west drive 12 feet, making total 78 feet and 105 feet respectively. The reef is not quite so good. Five wagons arrived to-day with deals, rails, &c. I received a letter to-day from the transport agent in Johannesburg saying he hoped to get 10 or 12 wagons to load parts of the battery. This we cannot depend on, as we have had so many promises.

SOUTH-EAST MYSORE. — Fortnightly report of Captain Scantlebury, mine agent, dated August 7: Beresford's shaft. This shaft has been sunk 4 feet, now 219 feet 6 inches from surface. The lode is 3 feet wide, and worth 6 dwts. of gold to the ton. We have cut ground for cistern and hitches for bearers. The lift will soon be fixed when this shaft will be sunk with rock drills. 200 feet level north has been extended 16 feet, now 103 feet 6 inches from shaft. The lode is 2 feet 6 inches wide, and worth 8 dwts. of gold to the ton.—Rise above the 200 feet level south. This has been put up 12 feet. The lode is 2 feet 6 inches wide, and worth 8 dwts. of gold to the ton.—New shaft north of Beresford's. This has been sunk 28 feet, but of course is not timbered.—Pigott's shaft. The crosscut east at the 180 feet level has been advanced 4 feet 6 inches, now 35 feet from shaft. The rock is very hard. The lode must be going down almost vertical, otherwise we should have intersected it before this.—Surface. We are busily engaged with the erection of the stamps. The piles are down, and the loading for boiler and engine commenced.

VICTORY (Charters Towers).—From the mining manager's report for fortnight ending July 14: Drive from Papuan Company's lease carries 10 inches stone, During the past week holed through New Queen at end of No. 11 north level. There is some stone left by that company on boundary which will pay to work. Will get a track road laid to it in about a week's time.—Clarke's Worcester Shaft. Drive from this shaft, country hard. Expect to cut formation during next fortnight.—No. 2 shaft. Reef in face 18 inches, quality poor. No. 6 level carries 6 inches stone.—No. 5 level. No stone showing in face.—Cross drive from No. 4 east. The slide we have been following here is getting displaced, and I think we are near Brilliant formation.—Cross drive from No. 3 west level. The vein of stone being followed here is about 6 inches in thickness and of poor quality. This drive is running due south and the stone dipping west at an angle of 30 per cent. No. 1 west carries 4 to 12 inches fair quality.—No. 1a west. Reef here has pinched to 2 inches.

ANGLO-MEXICAN.—Writing on July 26 with regard to the gold mine at San Jose de Gracia, the manager says: I beg to hand you herewith report of work done in the mine for the week ending the 21st inst. as follows: Measurements of work done in the mine. New main tunnel advanced 30 feet, total 915 feet. New air winze advanced 11 feet, total 94 feet. Muertos tunnel advanced 37 feet total 1496 feet. Upraise No. 13 advanced 8 feet, total 68 feet. Drift south, Jesus Maria tunnel, advanced 26 feet, total 74 feet. Since my last report but little change has taken place in the appearance of the mine, which continues to look well at all points. Work at present in the mine is confined to preparations for the extraction of ore in quantities, in order to be ready when the mill starts up. From the enclosed assay list you will note that the sample from upraise No. 10 shows a good grade milling ore, as also that from the hanging wall in upraise No. 15. This latter winze continues to show also a streak of high grade shipping ore. Working on the mill is about concluded, and we are only waiting the arrival of the pack mules, part of which are already here, to start up. The wheels for the gravity road have been received, and the date for starting the mill has been fixed for August 1. I see nothing to prevent our starting upon the day indicated unless something very unforeseen occurs.

THE MACARTHUR-FORREST PROCESS IN BRITISH COLUMBIA.—This summer the now famous Cassel Gold Extracting Company, of Glasgow, operating and owning the MacArthur-Forrest cyanide process patents, have had an experimental plant at Vancouver superintended by W. Pellow Harvey, F.C.S. This process has been used for extracting gold and silver from gold bearing ores, and locally a great deal of success has been accomplished. Refractory and low grade ores hitherto considered of no value have been treated in ton lots, and an average extraction of 93 per cent. of any assay value at a cost of $1·80 per ton for chemicals, and time will speak for itself. Tests are being made free of cost, where business is likely to accrue, and we strongly recommend our mining men to have their ore treated. Should not the Poorman, Whitewater, and such like mines do well on this system of treatment? Mr. Harvey is too well known in the province as a chemist to require any recommendation from him; the process he superintends is also eminently and well known.—*The Nelson Miner.*

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MINING NOTES.

HOME, COLONIAL, AND FOREIGN.

CAPTAIN J. BENNETT, Inspector of Mines, in his report to the Under Secretary for Mines, Queensland, says:—One mine at Eidsvold which calls for special mention at this juncture is the Lady Augusta. This mine was originally taken up as a block mine on the Stockman reef and worked by a company who sunk a vertical shaft to a depth of 100 feet, where the reef was struck. Operations were then carried on to the reef, and a considerable amount of sinking, driving, and stoping was done by which 755 tons of stone were raised and milled for a yield of 1246 ounces of gold, but although this yield was high the rock was so hard and the reef so small, that the results were not satisfactory, and the company went into liquidation. The property was purchased by the present owners, consisting of 14 miners, each working his own share and employing five men in addition. The mine is managed by Mr. Matthew O'Connell (one of the partners), who since taking charge has mined and milled 620 tons of stone for a yield of 2314 ounces of gold, showing that the stone is becoming much richer as depth is attained. The reef is small, about an average thickness of 2½ inches, but it has been uniformly productive. The present operations extend to a length of 700 feet, and there has not been one unproductive patch. The reef, although small, is a true fissure. I might mention that in addition to the 620 tons before named, 50 tons were ready to be sent to crushing at the time of my visit, which was expected to yield 4 ounces of gold to the ton. This co-operative company is working the mine well, making good wages, and has sufficient reef blocked out to keep going for years even without fresh discoveries. The reef is dipping into the Empress property, which is the adjoining claim; it also runs direct into the Heights of Alma ground. I make special mention of this reef, not only of the remunerative results which it is giving the present owners of the Augusta, but because it will, no doubt, carry out beyond the limits of that property and benefit other claims, and have an important bearing on the future of the field.

AT the George Goch east mine the erection of the new hauling engine is completed. At the west mine a new head gear, containing a sorting floor and Gates' crusher, hauling engine, Cornish pump and 260-horse power marine boilers, are in course of erection. The incline shaft has been retimbered from the top to the third level. Surface condensers are being added to the mill engine. The tailings pump, which has given a great deal of trouble, is to be replaced by an elevator wheel, 38 feet in diameter, driven off the battery engine. The management is sparing no expense in equipping the mine with first class machinery with the object of reducing the working expenses. The output for July is expected to reach 3000 ounces. As soon as the surface arrangements are in such a condition as to allow of the ore being thoroughly sorted, this output should be considerably increased. At present no systematic sorting out of waste rock is possible, only a small portion of the sandstone being picked out at the mill. Operations at the west mine have been suspended during the erection of the new head equipment. As soon as this is completed a policy of vigorous development in this section will be pursued. Mr. Way, the manager, says the *Standard and Diggers' News*, is to be congratulated on the energy he is displaying in placing the mine on a sound paying basis.

THE British South Africa Company has communicated to Reuter's Agency the following extracts from its mail letter, dated Cape Town, August 8:—The Mining Commissioner at Victoria reports, under date August 1, that 70 claims have been registered during the last week. The main shaft of the Matabele reef is down 50 feet, reef 2 feet wide, carrying a large amount of heavy gold; drive now being cut into strike; supposed parallel body. Magnificent specimens have been brought into camp. The Exploring Company has struck a reef on Balmoral extension four blocks from Vincent's main shaft, and is now sinking Victoria reef main shaft. Good payable ore all through. The second level is now being developed. Present intention is to sink the main shaft to 250 feet. Milling is to commence in October. Owing to the large influx of people to Buluwayo it has been found necessary to hold a further sale of stands in that township. This sale will be held in October next, and particulars will be published later.

THE mining reporter of the *Coolgardie Miner* writes of Bayley's Reward:—"Some little time back I reported at length upon the greatest up to date of Coolgardie gold mines. Since then, thanks to the unvarying courtesy of the manager (Captain Matthews) and the local director (Mr. Gordon Lyon), I have been enabled to compile the following figures, which will give some slight idea of what this truly great property is capable of. From March 1, 1893, to July 6, 1894, when the battery and plank-last was in use, the results were:—Stone treated, 438 tons; gold won, 30,200 ounces; average gold won per ton 82 ounces; value of gold, £117,025; dividends paid, £78,600. This means that each ton of stone raised to the above date was worth £244 7s. By means of Berdan pans and plank-last from March 1, 1893, to April 5, 1894, the results were:—Stone treated, 40 tons; gold won, 21,565 ounces; average gold per ton, 539 ounces; value of gold from 40 tons ore, £83,564 7s. Rather a surprise to those pessimists who have been so found of attempting to belittle Bayley's Reward, I fancy."

THE July output of the Nigel, Metropolitan, and United Main Mines was:—

	June.	July.	Increase.	Dec case.
a United Main ..	1781 ..	1772 ..	— ..	9
b Metropolitan ..	939 ..	1011 ..	72 ..	—
Nigel	2446 ..	2391 ..	— ..	55
Nigel Cyanide ..	2272 ..	2117 ..	— ..	155

a From 3799 tons. *b* From 3375 tons.

THE Constance Reef is situated on the Odzi River, 16 miles west of Umtali. Four blocks have been pegged on this reef belonging to Messrs. Reynolds, F. Taylor, W. M. Taylor, and Captain Hathorn. Six different reefs have been struck on this property, all carrying gold, and their widths average from 2 feet to 4 feet. On the Constance Reef a 30 feet shaft has been sunk and 2 feet of the reef has been gone through, but the other wall has not yet been reached. A shaft is being put down on one of the reefs to the north, it is now 10 feet. Surface cuttings expose the other reefs. This property has a most promising future, says the *Umtali Advertiser*.

A BURMA paper has been informed that no licenses or permission to sink shafts, or make any preliminary preparations whatever, will be granted to applicants for mining leases in the Wuntho gold bearing tracts, until the expert, specially brought out for the purpose of making a thorough investigation into the gold deposits, has submitted his report to the Government.

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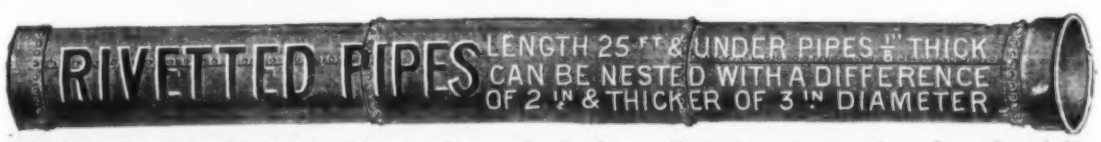

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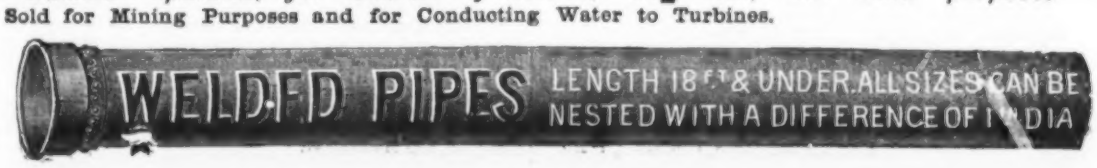

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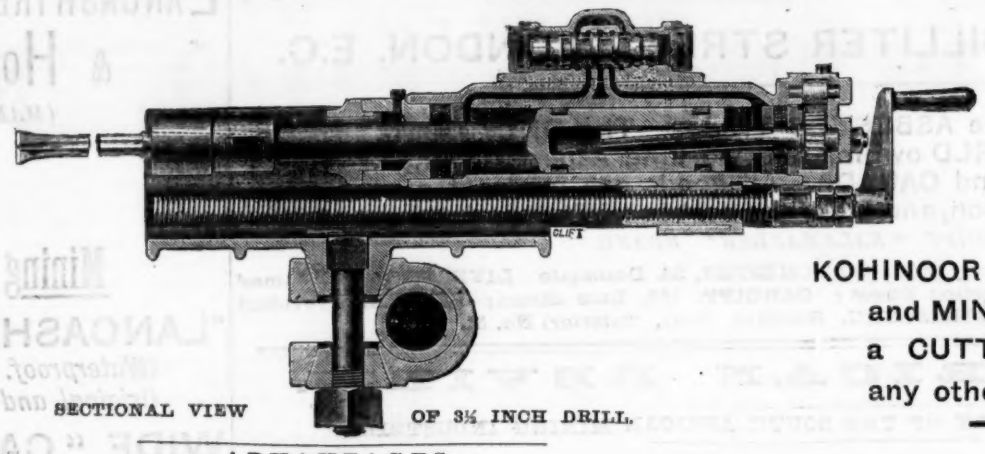

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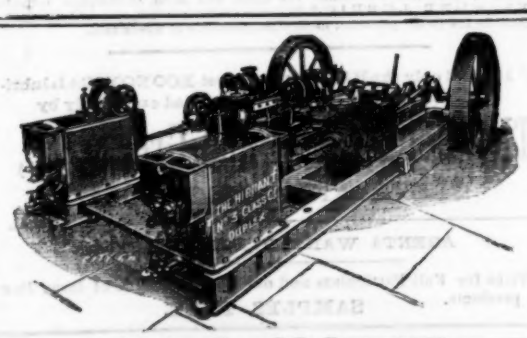

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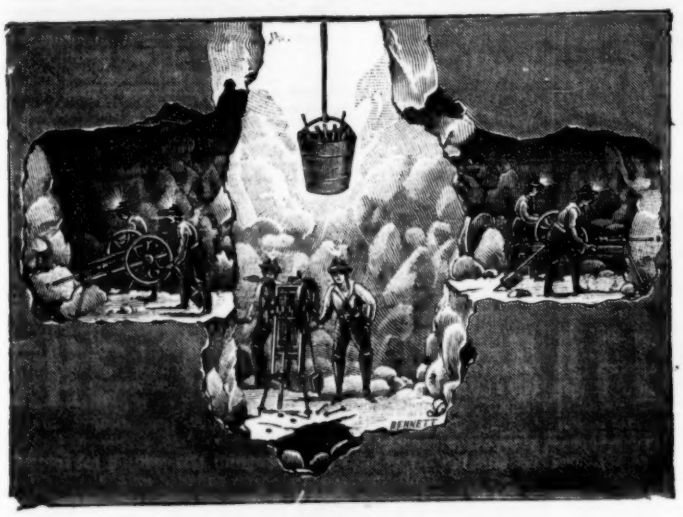

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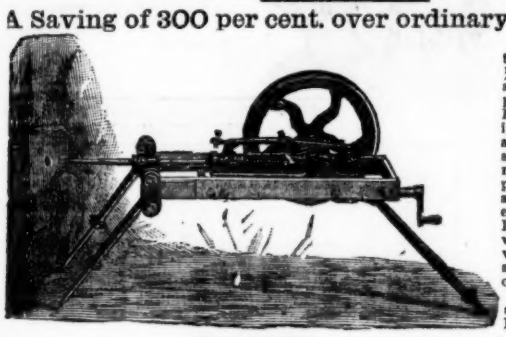

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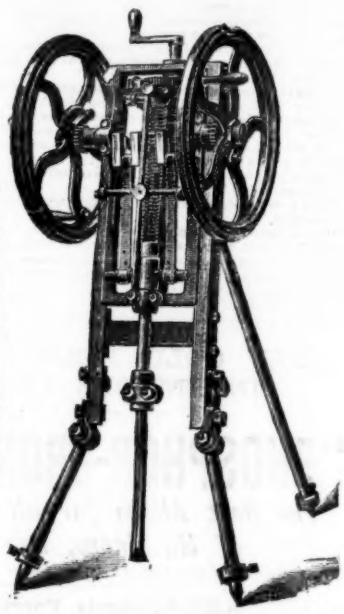

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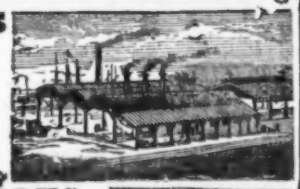

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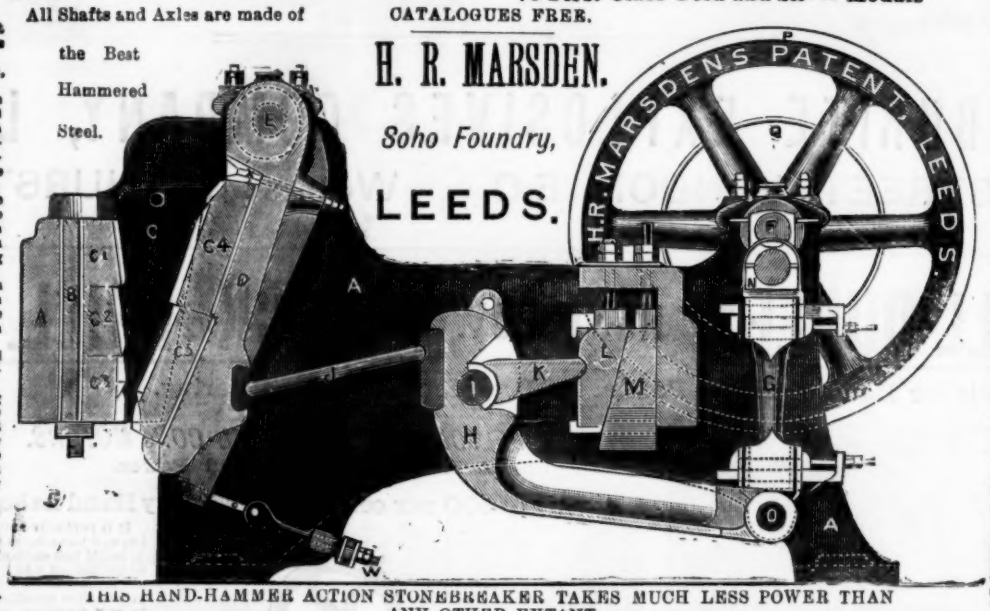

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"I am sure the machine will be a success, and a great one, and there is any amount of demand for such a machine. We can work it with 20 lbs. of steam and our engine, which is a 12-h.p., plays with the work, in fact we run the Stonebreaker and the Pulverizer both together with 35 lbs."

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"We have great pleasure in testifying to the efficiency of the 15 in. by 8 in Lever Hand Hammer Motion Stone Breaker you supplied us with. We find that our 4 h-p. Engine with same drives it 220 revolutions per minute, and breaks six tons per hour of the hardest "Diorite" Whinstone the sample is much before any hand-broken we have ever got done. Our Mr. P. J. GRAHAM, C.E., who was Surveyor of Highways for ten years, before joining our firm, says, It is by far the most economical machine he ever had to do with; he had two of your former make, and two of another firm's make; compared with these four machines your new patent gives the following advantages:—The horse-power required to drive is exactly 40 per cent. less. The sample of the broken macadam is so far superior to that broken by other machines, and even to that broken by hand that we can make no comparison. It is by far the best sample we have ever seen."

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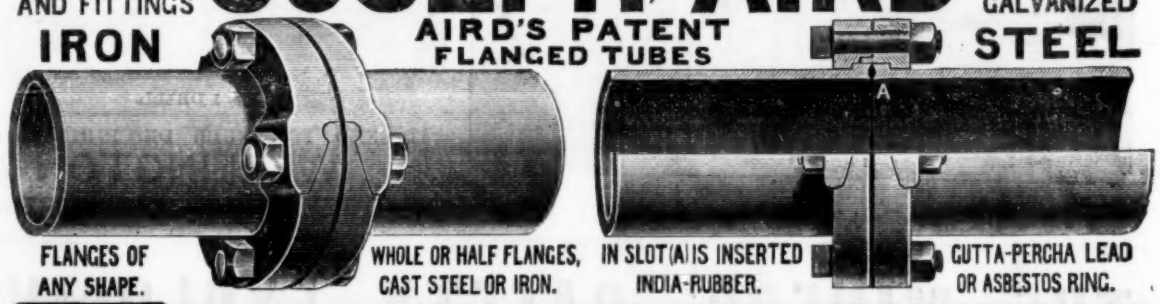

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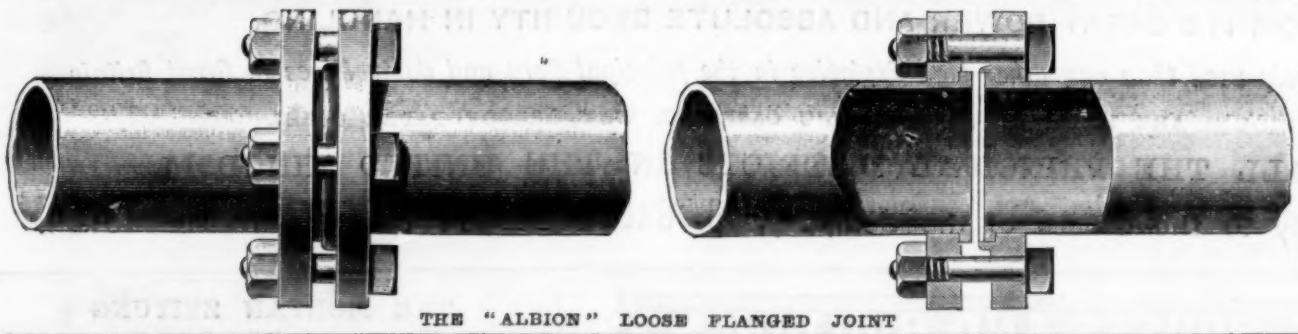

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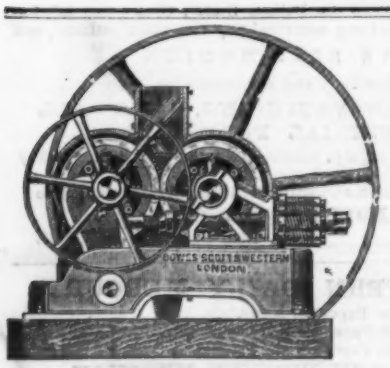

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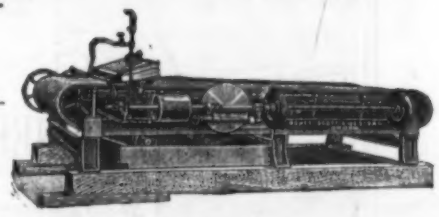

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